EASTERN AND WESTERN ELEMENTS IN SELECTED WORKS BY GIACINTO SCELSI AND TORU TAKEMITSU

By

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THESIS

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ABSTRACT

In this study, I examine the mixture of Eastern and Western musical, aesthetic, and conceptual elements in the work of Giacinto Scelsi and Toru Takemitsu. When considering the work of composers like Scelsi and Takemitsu, interpretations based solely upon their respective nationalities can only represent part of the musical meaning because the cross-cultural influences were so important to their respective expressive languages. To remedy this interpretive problem, this project presents both a theoretical analysis and a cultural analysis of one solo piano work and one orchestral work from each composer that demonstrates the presence, importance, and effects of musical, aesthetic, and conceptual cross-cultural exchange.

Chapter one introduces the general background of the project along with biographical information on Scelsi and Takemitsu. Chapter two presents an introduction to certain Eastern concepts and aesthetic ideals specifically related to Buddhist philosophy, Zen, Japanese gardens, and the cosmological symbols of sound therapy and yoga. It also compares and contrasts Eastern and Western conceptions of music. In chapter three, I present an analysis of Scelsi's *Suite No. 9 "Ttai"* (1953) and Takemitsu's *Rain Tree Sketch* (1982), both for solo piano, taking care to note the influence of Eastern concepts on Scelsi and Western concepts on Takemitsu. Chapter four focuses on two orchestral works: Scelsi's *Quattro Pezzi su una nota sola* (1959) and Takemitsu's *Green* (1967), again noting the importance of Eastern and Western elements, respectively.

"The LORD is my shepherd, I shall not be in want."

(Psalms 23:1)

To MY PARENTS

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INTRODUCTION

A major branch of Buddhism, Zen has influenced a number of contemporary composers living in both the East and the West, and has led to changes in their worldviews and creative approaches. Two prominent twentieth-century composers, Giacinto Scelsi (1905−1988) and Toru Takemitsu (1930−1996), were influenced in different ways and to different degrees by Zen and other Asian traditions.

This study presents an analysis of four works: Scelsi's *Suite No. 9 "Ttai"* (1953) for solo piano and *Quattro Pezzi su una nota sola* (1959) for orchestra, and Takemitsu's *Rain Tree Sketch* (1982) for solo piano and *Green* (1967) for orchestra. This study will discuss how Scelsi, a composer with a Western background, was influenced by Buddhism and various Asian musical traditions; and how Takemitsu, a composer with Eastern roots, became Westernized through his study of the music of Olivier Messiaen, Claude Debussy, Maurice Ravel, and John Cage. Particular focus will be given to the fusion of Western techniques and traditional Asian elements found in Scelsi and Takemitsu's music.

Chapter one contains biographical sketches of Scelsi and Takemitsu. Chapter two provides a general comparison of the Eastern and Western musical languages, and discusses the cross-cultural influences in the music of Scelsi and Takemitsu. Chapter three analyzes two piano pieces, Scelsi's *Suite No. 9 "Ttai"* and Takemitsu's *Rain Tree Sketch;* the former is based on single, unison pitches, and the latter employs non-diatonic scales, including pentatonic, whole-tone, and octatonic scales. Chapter four examines two orchestral works: Scelsi's *Quattro Pezzi su una nota sola* and Takemitsu's *Green*. Similar to *Suite No. 9 "Ttai,"* Scelsi's *Quattro Pezzi su*

una nota sola is structured on single, unison pitches creating an unusual series of irregular wave-like motions, and Takemitsu's *Green* focuses on sound textures and timbres. Chapter five summarizes the influence of Eastern traditions in the music of Scelsi, the influence of Western styles in the music of Takemitsu, and the influence of "Eastern spirituality" on the work of both composers.

CHAPTER 1

BIOGRAPHICAL SKETCHES OF SCELSI AND TAKEMITSU

1.1 Giacinto Scelsi

Giacinto Scelsi was born in 1905 in La Spezia, Italy, and died in 1988 in Rome. Famous for his single-note compositions, he is regarded as one of the most extraordinary composers of the twentieth century. His teachers and his frequent travels influenced his musical language. He first studied composition in Geneva in the early 1930s, and he subsequently studied in Vienna in 1935-36 with Walter Klein who was a disciple of Schoenberg.[1] Scelsi's twelve-tone compositions from his time in Vienna predate those of Luigi Dallapiccola by ten years, which is remarkable because Dallapiccola had previously been thought to be the first Italian to write twelve-tone music.[2] Scelsi, however, soon felt limited by twelve-tone techniques, and in 1936, he traveled to Tibet where he became fascinated with Eastern music, which led to his practice of writing works based on a single note.[3] Upon his return to Europe, Scelsi was active in Paris, where most of his music was premiered and published. He composed several piano pieces that were influenced by the styles of Berg and Scriabin and explored new tone colors.[4]

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[1] For an overview of Scelsi's life and work, see *Grove Music Online*, *Oxford Music Online*, s.v. "Scelsi, Giacinto," by Christopher Fox and David Osmond-Smith, accessed December 15, 2013, http://www.oxfordmusiconline.com/.

[2] Joseph M. Abramo, "A Synthesis of East and West in the *Quattro Pezzi* of Giacinto Scelsi" (M.Mus. thesis, Michigan State University, 2003), 2.

[3] *Ibid*., 1.

[4] *Ibid*., 2.

Beginning in 1948, Scelsi experienced an artistic crisis that would lead him to develop a new musical style. Due to psychological and mental problems, he stopped composing for four years. During this time he underwent music therapy and yoga treatment, which strongly influenced his new direction.[5] Through his yoga practice, he learned to repeatedly speak the word "Om," which, according to yoga specialist Leena Mehendale, "is considered to be the first sound generated in space."[6] Subsequently, when he resumed writing, he composed music that was inspired by several yoga concepts.

In the 1950s, Scelsi returned to Italy and lived in Rome. His compositions at this time had departed from serialism and his new musical approach was fundamentally different from the then-current musical trends. He was interested in the Eastern mysticism from India and Tibet and in the traditions of Greece, Egypt, Syria, South Arabia, and Byzantium, all of which led him to create an array of short pieces.[7] In the late 1950s, Scelsi's work toward finding a new sound finally came to fruition when he focused exclusively on writing music based on single notes. By 1960, he had become a secretive person who did not like to talk about himself, or to discuss his work. He also never allowed himself to be photographed. Because of this, first-hand details of Scelsi's life and music are extremely scarce.[8]

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[5] *Ibid*., 3.

[6] Leena Mehendale, "The Natural Way to Health," *India International Centre Quarterly* 18 no. 2/3 (1991): 151-152.

[7] Ivan Elezovic, "Scelsi's Approach to the 'Third Dimension' in *Quattro Pezzi* (Su Una Nota Sola)" (D.M.A. diss., University of Illinois at Urbana-Champaign, 2007), 4.

[8] Marc Wolf, "Giacinto Scelsi: Sound Messenger 1905-1988," *Marc Wolf,* last updated March 19, 2013, http://marcjwolf.com/articles/giacinto-scelsi-sound-messenger-1905-1988/.

1.2 Toru Takemitsu

Toru Takemitsu (1930-1996) was determined to become a composer when he was in his teens. He was mostly self-taught with little formal musical training, although he briefly attended the Tokyo National University during the post-war years. In 1948, he met the composer Yasuji Kiyose (1900-1981) with whom he studied composition for a short period.[9] During this time the young Takemitsu's artistic talents were already evident in his ability to assimilate a variety of styles and concepts while maintaining his individuality, which eventually lead him to create his own distinctive sound.

In the first phase of his career, Takemitsu was interested primarily in Western trends and techniques, and deliberately prevented himself from listening to or writing traditional Japanese music.[10] His musical influences ranged from Schoenberg and Webern to Stravinsky and Ravel. It was his encounter with John Cage's writing in the late 1950s, and the subsequent exchange between the two composers, that led Takemitsu to rediscover Japanese music and traditions.[11] In 1961, through a festival in Japan organized by Toshi Ichiyanagi, a Japanese composer who had studied in the United States, Takemitsu heard Cage's *Concert for Piano and Orchestra* (1958). This work greatly inspired Takemitsu to employ similar techniques in his own compositions, such as *Ring* (1961), which uses indeterminate procedures, and *Corona for Piano* (1962) and *Corona II for Strings* (1962), both of which use graphic notation to heighten possibilities of the

[9] Peter Burt, *The Music of Toru Takemitsu* (New York: Cambridge University Press, 2001), 25.

[10] Mikiko Sakamoto, "Takemitsu and the Influence of "Cage Shock': Transforming the Japanese Ideology into Music." DMA diss., University of Nebraska, 2010.

[11] Burt., 94.

unexpected.[12] His ongoing contact with Cage, who had a close relationship with Zen master Daisetsu Teitaro Suzuki, had a significant influence on his understanding of Japanese values.

Other composers who had great impact on Takemitsu include Debussy and Messiaen, who themselves were drawn to non-Western music. In his account of the background to Takemitsu's *Quatrain II,* Timothy Koozin writes, "Takemitsu has stated that he was so moved by Olivier Messiaen's *Quartet for the End of Time* that he asked Messiaen for permission to use the same instrumentation in a piece of his own."[13]

[12] Burt., 92-93.

[13] Timothy Koozin, "Spiritual-Temporal Imagery in Music of Olivier Messiaen and Toru Takemitsu," *Contemporary Music Review* 7 no. 2 (1993): 185.

CHAPTER 2

EASTERN AND WESTERN INFLUENCES IN THE MUSIC OF SCELSI AND TAKEMITSU

2.1 Eastern and Western Musical Languages

Different musical repertoires and traditions have their own musical characteristics that allow them to be identified and recognized. This section will provide a general comparison of the musical characteristics and aesthetics typically recognized as "Eastern" and "Western." The term "Western music" in this document refers very broadly to the tonal music tradition in Western Europe between the seventeenth and late-nineteenth centuries, as well as to the diverse directions of Europe and North America around the turn of the twentieth century, including Impressionism, atonality, and twelve-tone techniques. While the term "Eastern music" refers generally to the musical traditions and cultures of different regions in Asia, in this discussion, special attention will be given to elements connected to the Tibet and Japanese traditions inasmuch as the former influenced Scelsi's music and the latter is connected to Takemitsu's native roots. Figure 2.1 shows a comparison of the characteristics commonly found in Eastern and Western music with a focus on the fundamental elements and principles including sound, texture, scale, form, tempo, and structure.[14]

[14] Yayoi Uno Everett and Frederick Lau, *Locating East Asia in Western Art Music* (Middletown: Wesleyan University Press, 2004), 199.

Figure 2.1. A comparison of the characteristics commonly found in Eastern and Western Music.

Elements and Principles	Eastern Music	Western Music
Sound	Use of grace notes, wide vibrato, portamento, microtonality, long sustained sound, resonance, and silence.	Use of ornaments and dynamics.
Texture	Use of single-note texture, monophony, and heterophony.	Use of polyphony and homophony, the latter includes melody and accompaniment.
Scale	Use of pentatonic scales.	Use of diatonic and chromatic scales.
Form	Frequent use of simple, symmetrical A-B-A' layouts.	Use of forms, such as binary, ternary, sonata, rondo, and variation structures.
Tempo	Use of three levels of tempo: slow, normal, and fast.	Use of specific tempo markings, such as *lento, adagio, allegro,* and *presto.*
Structure	Somewhat freer. Emphasis on oral tradition.	More structured. Emphasis on the use of notation.

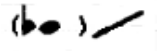
While various styles of ornamentation are used in both Eastern and Western music, the grace notes and vibrato types used in Eastern music seem to be freer and more flexible than their Western counterparts. Examples of such musical expressions or ornamentation can be found in traditional Japanese *shakuhachi* music, in which four expressions, *yuri*, *furi*, *nayashi*, and *nami,* are often used.[15]

Figure 2.2 shows various ways to articulate, sustain, and change sound in traditional Japanese *shakuhachi* music. *Yuri* is a wide vibrato trembling upward and downward; *nami* is a

[15] The *Shakuhachi* is a Japanese bamboo flute.

wave toward silence or to a quietly sustained pitch with decrescendo; *nayashi* is a short glissando before the note; and *furi* is a "head shake." Using unspecified and various ornamenting pitches, *yuri* and *nami* allow more flexibility than the conventional vibrato or tremolo in Western music. This repertoire that allows microtonal pitch variation had inspired Scelsi's work.

Figure 2.2. Examples of musical expression in traditional Japanese *shakuhachi* music.[16]

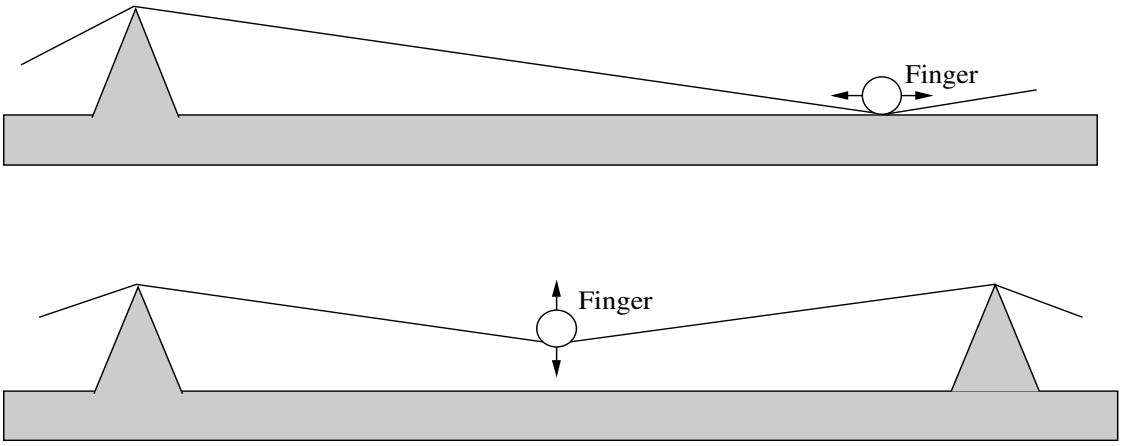
Name and Gesture	Description
Yuri (vibrato) 	A wide vibrato trembling upward and downward. Larger amplitude means a much wider tremble, while a smaller width to the wave length indicates a narrower one.
Nami (tremolo) 	A wave toward silence or to a quietly sustained pitch with decrescendo.
Nayashi 	A short glissando before the note.
Furi 	A "head-shake." It usually appears on single sustained notes.

In general, Eastern and Western musical instruments require different performance techniques. For example, on the violin, vibrato is produced by moving the finger over the string slightly forwards and backwards. In contrast, on the Japanese string instruments *yamatogoto* (大和琴) and *koto* (箏), vibrato is produced by moving the finger on the string downwards and

[16] Jeffrey Lependorf, "Contemporary Notation for the Shakuhachi: A Primer for Composers" *Perspectives of New Music,* Vol. 27, no.2 (Summer, 1989): 238-242.

upwards (see Figure 2.3).[17] These two vibrato types also correspond to the fact that Western vibrato is typically used for instruments that are bowed, while Eastern vibrato is usually implemented with instruments that are plucked. The latter practice allows the production of a broader effect.

Figure 2.3. Vibrato production on the violin (top) and the *koto* (bottom).



Certain traditional Eastern musics feature a sustained sound using a human voice or instruments. An example can be found in Tibetan sacred music, in which monks chant with low repeated or sustained pitches (recitation tones), sometimes producing multiple pitches (overtones) simultaneously from a single performer, which produces a drone effect. Tibetan sacred music also often uses two or multiple differently tuned *dung-chen* ("long trumpets") to play repeated low, sustained pitches, again producing a drone effect.[18]

[17] C.f. Alison McQueen Tokita and David W. Hughes, eds, *The Ashgate Research Companion to Japanese Music* (Hampsire: Ashgate Press, 2008).

[18] Mitchell Clark, *Sounds Of The Silk Road: Musical Instruments Of Asia*. Boston, Mass: MFA Publications (2005), 123-24.

In Eastern music, there is often little or no distinction between the role of the composer and that of the performer due to the less elaborate notational system and the emphasis of oral tradition. In Western music, on the other hand, there was a formal separation between the two roles, although many musicians have a dual role of being a composer and a performer. Western music also uses a more structured and organized system of musical notation that is transmitted through writing.

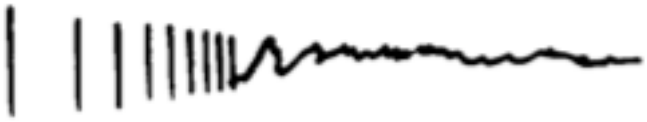
In Eastern music, silence and sound are often equal in status. Similar to the proportion between background and subjects in Japanese *sumi-e* paintings, silence can be used as long as it is necessary and is not considered inferior to musical sound. In Western music, however, silence is often notated as rests whose duration is calculable. Although notated and unnotated silence is also used in between phrases, sections, and movements, or at the end of a piece, there seems to be an understood limit in the lengths of silence, especially in the case where music continues after the silence.

In the Eastern musical traditions, tempos are often expressed with only three general indications: slow, normal, and fast, and a pattern of slow-to-fast tempos and rhythms are often used. For instance, tempos in Japanese music are comprised of the expressions *jo* (序), meaning slow, or introduction; *ha* (破), meaning normal or development; and *kyū* (急), meaning fast or conclusion.[19] These terms refer to not only to the tempo but also to the affect or gesture. When a gesture or rhythm goes from slow to fast, it is called *jo-ha-kyū* (序破急).

[19] See *Glosbe: The Multilingual Online Dictionary*, (accessed March 30, 2014) http://glosbe.com/ja/en/序破急.

Similar to *jo-ha-kyū*, in Tibetan Buddhist music, "*rolmo*-rhythm" also refers to a movement of progressively smaller distance between successive sonic events.[20] The term *rolmo* also denotes a gesture of decrescendo and accelerando (see Figure 2.5). Such gestures or expressions can be found in Scelsi's music, which will be discussed in chapter three.

Figure 2.4. A graphic representation of the *rolmo* rhythm[21]



In Eastern music, a note can be the core of the entire piece, while in Western music, a note is the smallest musical unit and usually has no standalone meaning. Eastern ensemble music often contains monophonic melodies played by various instruments, while Western ensemble music uses more varied textures, such as polyphony and homophony, and often addresses timbral similarities and contrasts between instruments. The different sounds of Eastern and Western music may be explained in part by the different concepts and approaches discussed above.

2.2 Cross-Cultural Influences in Scelsi's Music

While composers drawing inspiration from cultures other than one's own is nothing new, when studying the work of an individual, it is important to examine the composer's background

[20] Ter Ellingson, "The Mathematics of Tibetan *Rol Mo*," *Ethnomusicology* 23, no. 2 (March 1979): 225-43.

[21] *Ibid*., 230.

and the influence of both his or her native culture and other relevant cultures. This section will examine Scelsi's background in the Western world and his influences from Eastern cultures.

2.2.1 Scelsi's Western Milieu

Born and raised in southern Italy, Scelsi's early years as a teenager was influenced by then-current trends, including mysticism and atonality, which arose through studying with disciples of Scriabin and Berg. Most of his early compositions are for the piano using twelve-tone techniques, as well as Baroque and neo-Classical elements.

He started to travel extensively to the Near East and Asia—including Greece, Egypt, Syria, Arabia, and most importantly, Tibet—in the 1920s while maintaining close contacts with music colleagues and friends who were based in Europe.[22] His works were performed by established Italian musicians of the time, including Willy Ferrero, Carlo Maria Giulini, and Ornella Puliti Santoliquido. In 1937, Scelsi also organized a series of four concerts of contemporary music, presenting works of European composers such as Hindemith, Schoenberg, Stravinsky, Shostakovich, Prokofiev. While much of Scelsi's music composed after his breakdown was inspired by Eastern elements and spirituality, he uses Western musical instruments, voice types, and notation exclusively. His musical activities also remained in Europe, primarily in Italy, France, and Switzerland. He was aware of the contemporary trends in his Western circles and was also influential by several American composers whom he encountered in Europe, including Alvin Curran and Frederic Rzewski. In addition, he was

[22] Ivan Elezovic, "Scelsi's Approach to the 'Third Dimension' in *Quattro Pezzi* (Su Una Nota sola)" (DMA diss., University of Illinois at Urbana-Champaign, 2007), 4.

acquainted with American composers including John Cage and Morton Feldman. His later years saw international performances of his compositions to audiences of Western art music.

2.2.2 Scelsi's Eastern Influences and Interests

Scelsi's musical style changed considerably after his wife divorced him and after his ensuing bout with mental illness in 1948. The resulting artistic crisis was a turning point and led to a new compositional style with Eastern influences—a style that he would maintain for the rest of his life. As noted in chapter one, Scelsi's treatment included activities such as sound therapy and yoga, both of which influenced his changing musical style.

In her book, *A Summary of Sound Therapy*, Georgia Neff expresses the opinion that "sound therapies presuppose that the 'music' of which we are made has become dissonant and discordant and that our natural ratios or harmonies have been shifted into disharmonies, i.e. ratios that do not support biochemical and structural integrity. Illness is seen as a result of this disharmony or lack of integrity."[23] To address this internal disharmony, Scelsi began to practice yoga, which was a way to create what Neff refers to as "structural integrity" between the mental and the physical. One of the main objectives of yoga is to find a sense of wellbeing of the human body, mind, and soul. *Surya namaskara,* or "sun salutation," is a common yoga sequence practiced at a slow pace, and it is also associated with a specific breathing pattern and mantra recitation.[24] The syllable "om" is considered as the most fundamental mantra. Mehendale states that "the word 'om' is considered to be the first sound generated in space. A proper and

[23] William L. Meyer, Georgia Neff, and Lauren Garfield, *A Summary of Sound Therapy and Vibrational Healing Concepts Book I* (2003), Part A-3, http://bioadaptech.com/concepts1.pdf.

[24] C.F. Harvey P. Alper, *Understanding Mantras* (Albany: State University of New York Press, 1988).

repetitive pronunciation of 'om' revitalizes several nerve centers within the body."[25] Perhaps it was the practice of mantra repetition that influenced Scelsi's later compositional style that focused on single notes and microtonal oscillation. Examples of his orchestral works that use a single-note sound construction technique include *Quattro Pezzi su una nota sola* (1959), *Aion* (1961), *Uaxuctum* (1966), and *Pfhat* (1974). Being a follower of Buddhism later in his life, Scelsi frequently used the Zen Buddhism symbol—a circle—as his signature.

As mentioned earlier, although Scelsi did not employ Eastern instruments, he used a variety of material and methods to integrate Eastern elements into his music. His knowledge and appreciation of Eastern cultures and mentalities were the products of his journeys to places such as Tibet, India, and Nepal.

Beginning in 1955, he took an interest in composing music for the *clavioline* (see Figure 2.5), an electronic instrument that uses a monophonic synthesizer with an amplifier and filters. Although it has the appearance of a keyboard, the instrument does not produce fixed pitches but has the ability to modify and synthesize the timbre of sound. Scelsi used the *clavioline* to produce microtones and a wide variety of vibrato speeds and amplitudes, featuring the sounds that are more closely identified with Eastern music.

[25] Mehendale, 152.

Figure 2.5. Images of the *clavioline*[26]

Other Eastern-inspired elements that Scelsi incorporated into his music include the use of pentatonic scales and heterophonic textures, as well as a flexible treatment of time and silence (or sonic existence and non-existence) that does not rely on a conventional sense of pulse or rhythm where sounds seem to appear and disappear spontaneously.

2.3 Cross-Cultural Influences in Takemitsu's Music

Many Asian composers of the twentieth and twenty-first centuries were exposed to the conventional Western notational systems and composition techniques during their musical education. With the globalization of Western art music, it is usually easier to receive training in the Western art music style than in the style of traditional music in the composer's own region. This section focuses on Takemitsu's fusion of Western and Eastern stylistic elements in his own musical language.

[26] Gordon Reid, "The Story of The Clavioline," (*Sound On Sound*, March 2007), http://www.soundonsound.com/sos/mar07/articles/clavioline.htm.

2.3.1 Takemitsu's Western Influences

Although he born and raised in Japan, Takemitsu had a lot of exposure to Western music and had a solid knowledge of Western tonal harmony and counterpoint. Reflecting some of the contemporary trends in Western music, his early works display the influences of Schoenberg and Berg. Takemitsu was also influenced by several French composers including Messiaen, Debussy, and Ravel, especially in his use of colorful textures and timbres. His later works embrace a variety of styles and genres including jazz, pop, and film music. He wrote mostly for Western instruments using Western compositional techniques.

2.3.2 Takemitsu's Eastern Roots and Culture

Takemitsu did not have a strong interest in Japanese music and traditions until the late 1950s through his exchanges with John Cage. Takemitsu's compositions after the late 1950s became increasingly characterized by the blending of Eastern and Western musical styles. For example, in his *November Steps*, he uses two solo traditional Japanese instruments, *biwa* and *shakuhachi*, along with a standard Western orchestra. This work begins with a contemporary orchestral sound, but changes abruptly to an oriental type of sound through the use of the two traditional instruments. The juxtaposition of the Japanese and Western sounds is a major highlight of the work.

Inspired by Zen Buddhism, Takemitsu treats silence as a powerful tool and an equal partner of musical sound. Many of his later compositions begin with sound being developed from silence and end with a gradual decay toward silence. In his article, "Imagery in Messiaen

and Takemitsu," Timothy Koozin comments, "This (larger background in Japanese paintings and picture scrolls) brings the immediate context of the art work into contact with the undifferentiated continuum of all silence and space, creating a metaphor for eternity in the work."[27]

Some of Takemitsu's music seems to be inspired by the cycle of life and nature. For example, his *Rain Tree Sketch* depicts an imagery of the circulation of water on earth, whose meaning may be extended to that of reincarnation, a concept of endless cycle of birth, life, and death believed by people of many Eastern cultures.

[27] Koozin, 187.

CHAPTER 3

AN ANALYSIS OF SCELSI'S *SUITE NO. 9 "TTAI"* AND TAKEMITSU'S *RAIN TREE SKETCH*

3.1 The Structure and General Characteristics of Scelsi's *Suite No. 9 "Ttai"*

Composed in 1953, Scelsi's *Suite No. 9* for piano consists of nine movements, each of them featuring short, recurring motives.[28] The subtitle "Ttai" means "peace," and accordingly, the suite is generally quiet and slow-paced. In fact, Scelsi remarks that, "this suite should be listened to and played with the greatest inner calm. Nervous people stay away!"[29] In this suite, one may find sounds and timbres that are different from those typically found in Western music.

Figure 3.1 provides a structural analysis of the suite with remarks on the characteristics of each movement or major section.

Figure 3.1. A structural analysis of *Suite No. 9*.

Movement	Form	Description	Center tone(s) or material
I	A-B-(B+A)	A: ♩=63. Recurring short eighth-note motives in both hands. Increase of dynamics before Section B.	Bb

[28] Todd M. McComb, "Scelsi: Piano Works (Review)," (1991), http://www.medieval.org/music/modern/scelsi/piano.html.

[29] Giacinto Scelsi, liner notes to *The Piano Works 1*, Louise Bessette, Mode Records Mode 92, 2000, compact disc.

		B: ♩=92. Contains a series of quarter notes forming intervals of perfect 4th, perfect 5th, and diminished 5th. Use of syncopation, temporally undulating rhythmic units, heterophonic texture, and loud dynamics.	
		B+A: Decrease of dynamics and intensity. Continues the use of temporally undulating rhythmic units. Features pitch oscillation between Bb and B♮.	
II	A-B-C-A′-(C+B)-A″	A: ♩=42. Slow, quiet, and calm. Only F# is used, appearing in octaves of different registers.	F# and Bb
		B: ♩=69. Use of pentatonic scale, syncopated rhythms, triplets, and Eastern-style grace notes.	
		C: ♩=80. Use of trilling notes in thirty-seconds that are perfect 4th and major 2nd apart.	
		(C+B): ♪=76 and ♩=69. Elements from Sections C and B.	
III	Through-composed, or A-B-A′-Coda	The right hand contains constant oscillations of a minor 2nd between the center tones E and F. Similarly, the inner voice contains constant oscillations between A and Bb. The left hand contains chromatic material. The movement concludes with a chord consisting of a major 6th (F-A) in the right hand and a minor 6th (D-Bb) in the left hand.	Right hand: E-F. Inner voice: A-Bb. Left hand: Eb-F#/Gb; and D-Eb.
		A: ♩=66. Use of moving eighth notes, syncopated quarter notes, and sustained half notes.	
		B: ♩=108. Becomes faster and louder with a climax at *forte* dynamic. After ♩=116, the dynamic drops to *pp* and *ppp*.	
		A′: ♩=66. Formerly used in the inner voice, pitches A and Bb appear in the uppermost part. The notes also form minor 2nd chords played by the left hand.	

		Coda: ♩=96. Two-voice texture except for the final chord. Oscillation of pitches E and F in the upper voice and A and Bb in the lower.	
IV	A-B-C-(C+B)-Coda	Five sharps in the key signature without referring to any tonal center.	Perfect 5th and Minor 2nd
		A: ♩=58. Begins with a monophonic melody using pentatonic scale. The left hand enters subsequently with soft dynamics and the use of syncopated rhythms.	
		B: ♩=66. Both hands move to a higher register. The left hand contains frequent sustained chords in perfect 5th and minor 2nd, many of which are marked with an accent. Use of hand-crossing.	
		C: ♩=80. Use of triplets and quintuplets covering a wide register. A mixture of chromatic material and the intervals of perfect 5th and minor 2nd. Climax at the point marked as ♪=♪ and *stridente.*	
		C+B: ♩=80. Use of hand-crossing and elements from Section C.	
		Coda: ♩=66. The left hand contains chords formed by perfect 5ths. The right hand contains single notes interspersed with rests. Very calm.	
V	Through-composed	Unpredictable progressions, but the pitches G and Ab, and D and Eb oscillate regularly in the upper and inner voices.	G-Ab, and D-Eb
VI	A-B-A-B′-A (Similar to the 2nd movement)	A: ♩=40. Slow and quiet. Both hands play in the low register with an emphasis on the pitch Bb.	Bb
		B: ♩=56. Both hands play in the high register. Use of loud dynamics, fast-paced rhythms, and dissonant clusters.	
		B′:♩=56. Similar to Section B with the use of a higher register. Contains trilling notes that are a 5th apart.	

VII	Similar to the 1st movement	Various harmonic combinations built upon non-diatonic scales. Chromatic melodies in the upper voice. Set in middle and low registers with a generally calm atmosphere. Unlike the other movements, it ends with an unusually loud, accented note.	Chromatic pitches, and various harmonic combinations.
VIII	A-B-C-A′(C+A) (Similar to the 2nd movement)	Use of chords containing octave, perfect 5th, perfect 4th, minor 2nd, and major 2nd intervals.	G
		A: ♩=46. Homorhythmic. Chords are based on the pitch G.	
		B: Half note =50. Sounds more dissonant and moves twice as fast as in Section A.	
		C: Both hands are in the high register with frequent use of trills and short grace notes.	
IX	Through-composed (Similar to the 3rd movement)	Suggests microtonality through the use of "crushed" sound, such as the simultaneous placement of C# and C♮. Repeated use of the units F# and G, and C# and D.	C#

In general, similar compositional ideas can be found between the first and seventh movements, the second, sixth, and eighth movements, and the third and ninth movements. Throughout the suite, soft dynamics are used consistently in the slow sections, and loud dynamics are used in the fast sections.

Scelsi's interests in center tones, repetitive gestures, and pitch oscillation can be seen in *Suite No. 9.* Figure 3.1 contains the center tones or center material used in each movement. Figure 3.2 illustrates the beginning of the second movement with the center tone F#. Measure 1 begins with two F#s forming an octave in the middle register; m. 2 and m. 3 see the addition of two F#s in the low register. The subsequent section contains the recurring pitches Ab, Bb, and Eb. Figure 3.3 shows the use of repetitive patterns at the beginning of the first and fifth

movements. Figure 3.4 shows the perpetual oscillation of the pitches E and F at the beginning of the third movement, with an emphasis on E, which appears frequently in long, tied notes. The same figure also illustrates the recurring pitch G imbedded in a leaping melody at the beginning of the fourth movement.

Figure 3.2. The use of center tone F# and recurring pitches Ab, Bb, and Eb at the beginning of the second movement.

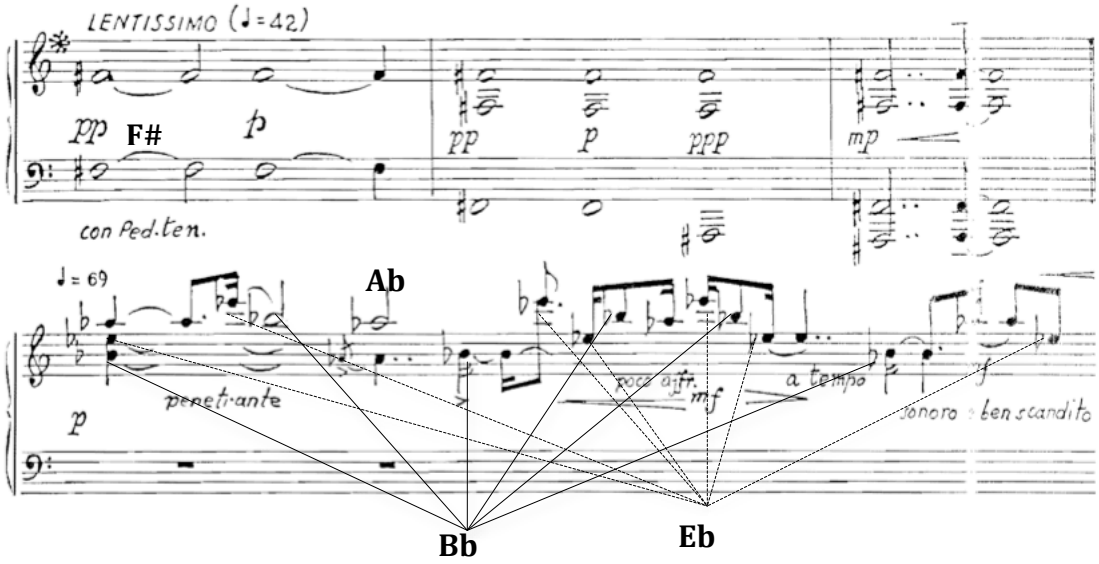
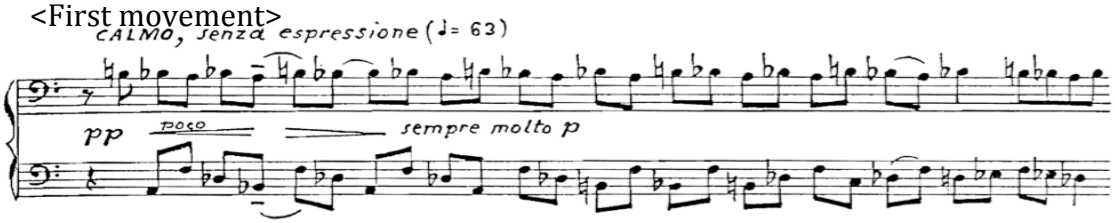


Figure 3.3. The use of repetitive patterns at the beginning of the first and fifth movements.

<First movement>



<Fifth movement>

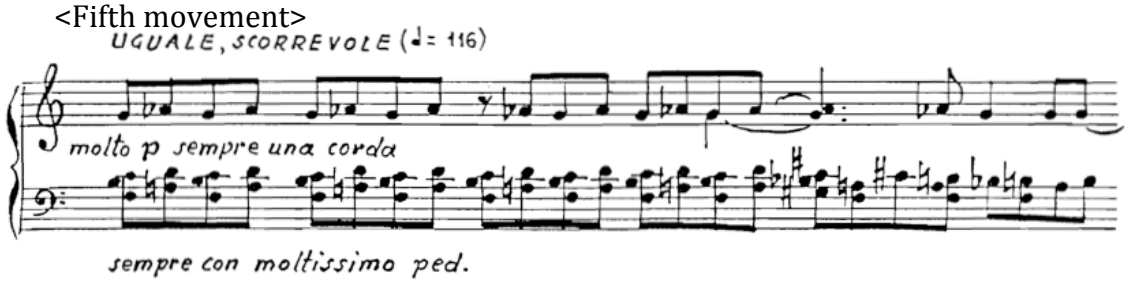
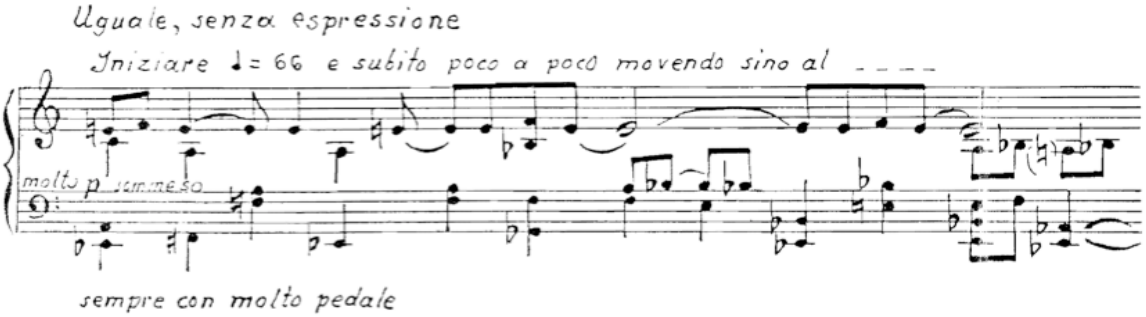
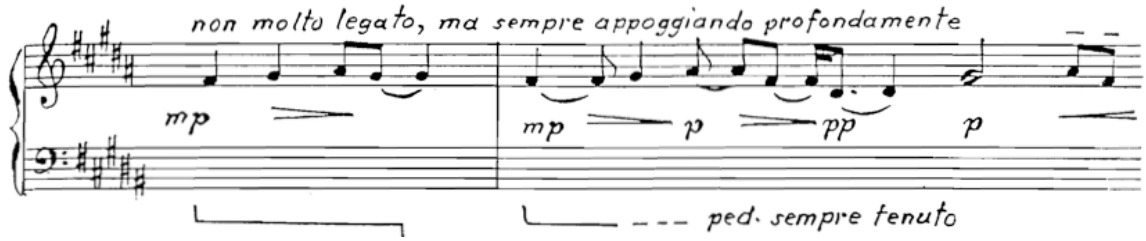


Figure 3.4. Recurring pitches E and G, respectively, at the beginning of the third and forth movements.

<Third movement>

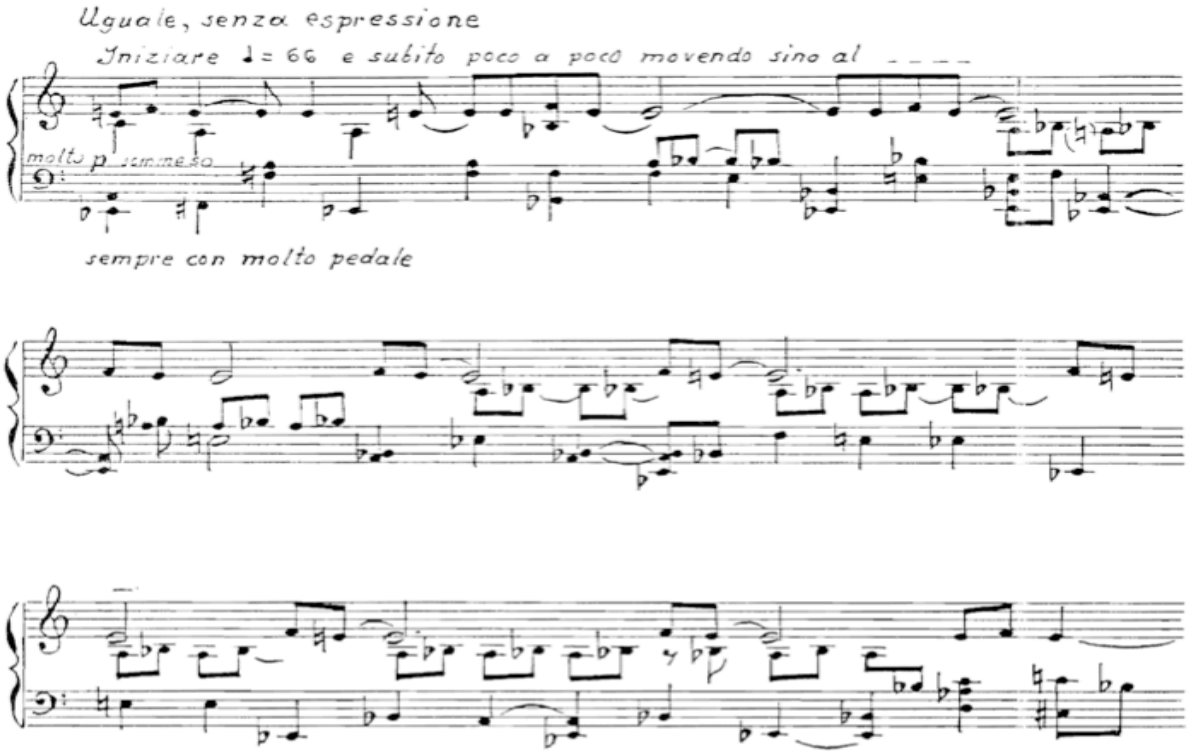


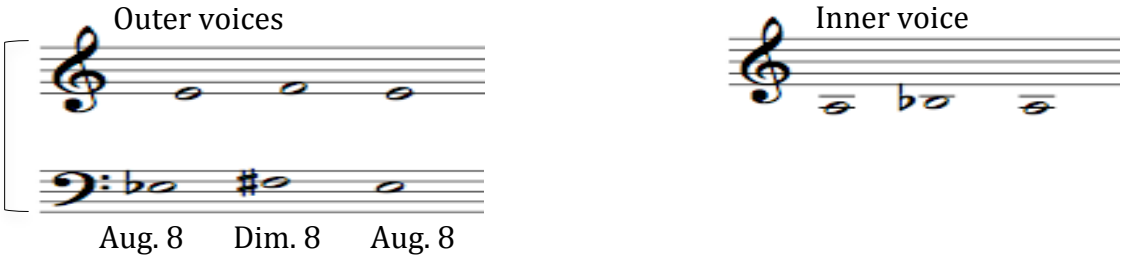
<Fourth movement>



The beginning of the third movement is a good example of simultaneous pitch oscillations. The uppermost voice oscillates between the pitches E and F, the lowest voice between Eb and F#, and the inner voice between A and Bb.

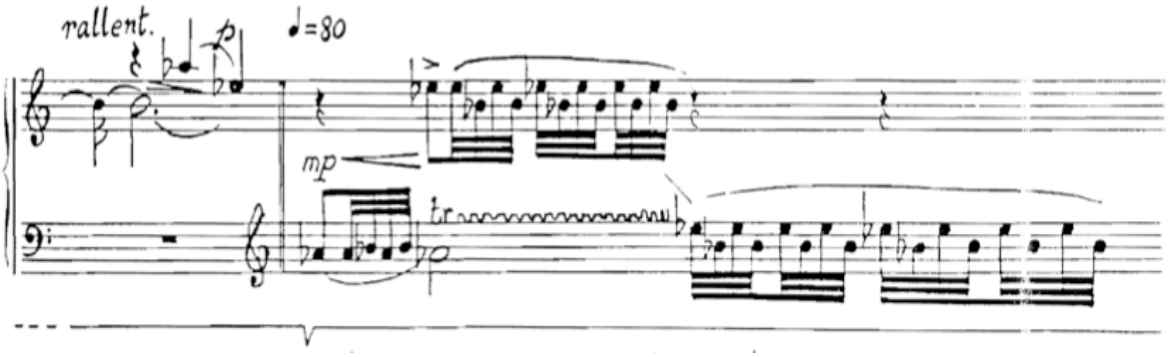
Figure 3.5. The use of ostinato at the beginning of the third movement





Oscillation also appears in fast motion as trills. Figure 3.6 shows a section from the second movement where fast trills occur between Ab and Bb, and Eb and Bb, all of which are notated in thirty-second notes.

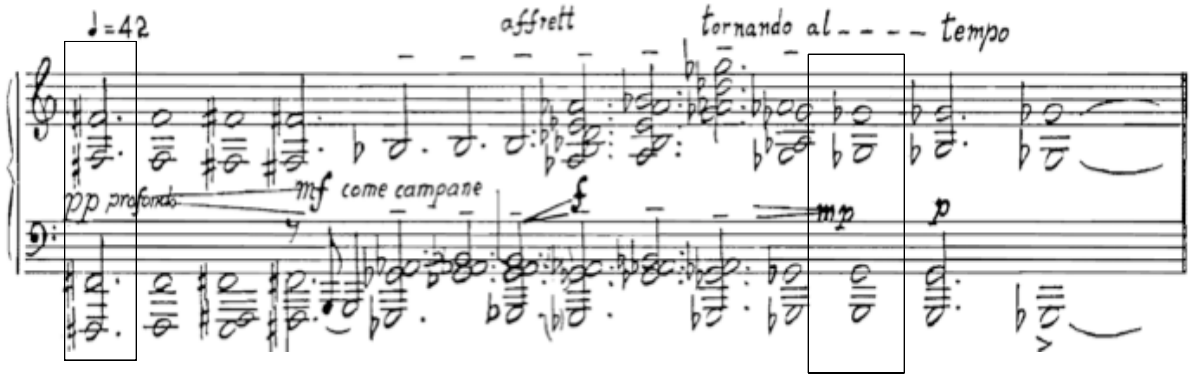
Figure 3.6. Fast trills between Ab and Bb, and Eb and Bb in the second movement.



Several pitch centers are established through the use of enharmonic pitches. For example, in the second movement, F# and its enharmonic note, Gb, form a pitch center (Figure 3.7). Although the frequencies of F# and Gb are identical on the modern equal-tempered piano, these pitches have a slight difference in frequency when played on other instruments using non-equal temperaments. For example, F# and Gb are approximately 23.46 cents apart in Pythagorean tuning, a system that emphasizes the sound of perfect fifth intervals.[30] The use of enharmonic pitches in this piano piece suggests the concept of microtonal oscillation commonly found in Scelsi's music.

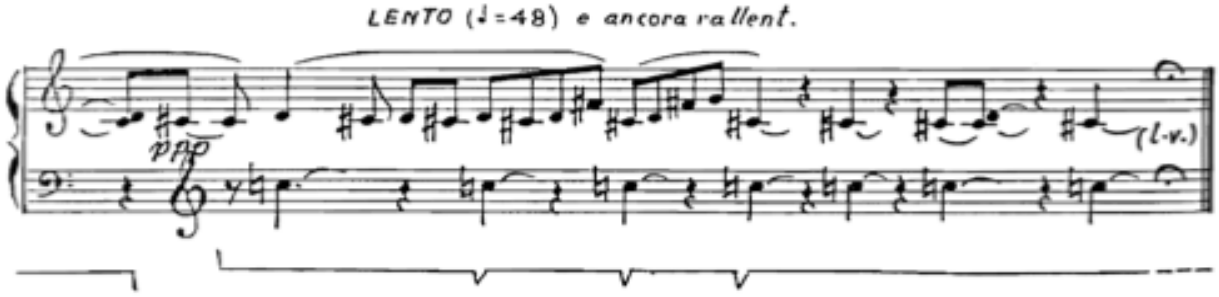
[30] Edward Dunne and Mark McConnell, "Piano and Continued Fractions," *Mathematics Magazine* 72, no. 2 (April 1999): 104-115.

Figure 3.7. The use of enharmonic pitches F# and Gb in the second movement.



The use of diminished and augmented octaves also suggests the concept of microtonal oscillation. An example of diminished octave (C# and C) can be found at the end of the ninth movement (Figure 3.8).

Figure 3.8 The use of diminished octave (C# and C) at the end of the ninth movement.



The interval of a minor second, the smallest possible interval between two notes on the piano, is frequently found in the suite (see Figure 3.9). It is also not uncommon to see

enharmonic pitches used in the oscillation of notes of such distance. Figure 3.10 shows the use of the enharmonic pitches Ab/G# alternating with the pitch A in the first movement.

Figure 3.9. The use of minor seconds (A-Bb and A#-B) in the first movement.

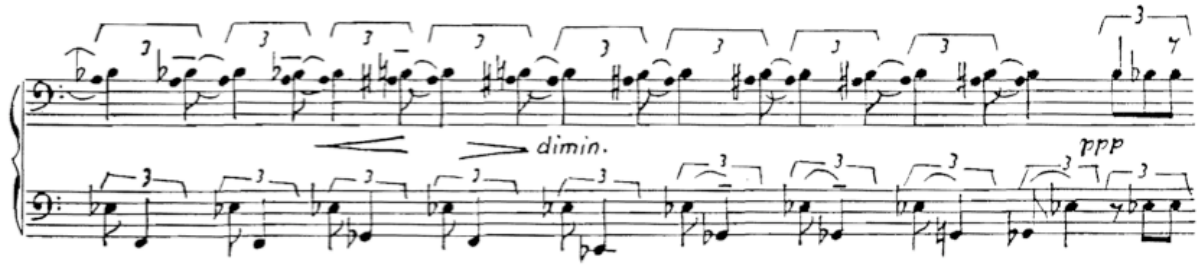


Figure 3.10. The use of the enharmonic pitches Ab/G# alternating with the pitch A in the first movement.

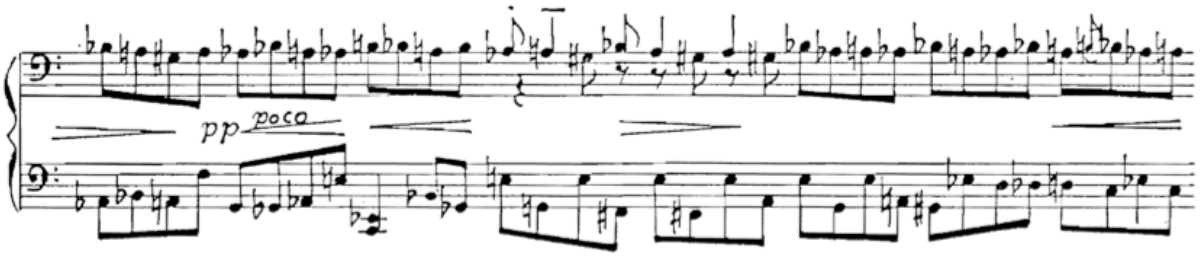
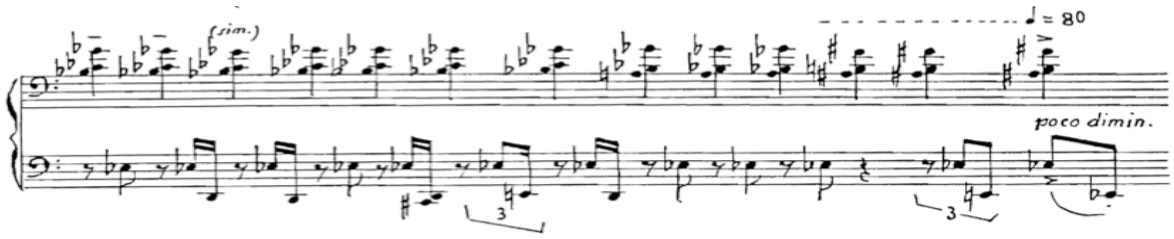


Figure 3.11 shows another example of enharmonic pitches from the first movement. The Bb and Gb in the right hand are notated as A# and F# respectively at the end of the system.

Figure 3.11. The use of the enharmonic pitches Bb/A# and Gb/F# in the first movement.



There are two types of silence found in this work: first, silence expressed through musical notation using rests; and second, the natural fading away of sound, usually appearing at the end of a section or movement. In Figure 3.12, the first rectangle highlights notated silence represented by quarter-beat rests in the right-hand, while the second rectangle implies *perdendosi,* or a fading away effect, without using any notation. Without the observance of time signatures or regular barlines in the suite, the fading away effect is sometimes represented by long note values or by notes tied to nothing, as illustrated in Figure 3.13. Extremely soft dynamics, such as *pianissimo,* and sustaining, slow-paced passages (Figures 3.12, 3.13, and 3.14) are often used to accompany the fading away effect.

Figure 3.12. *Suite No.9,* first movement, before Section B.

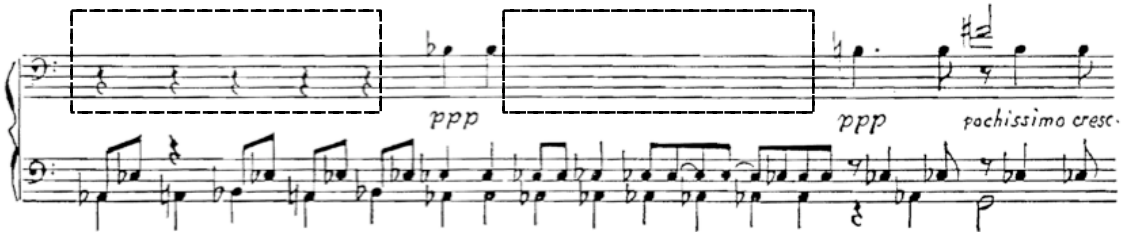


Figure 3.13. End of the first movement.

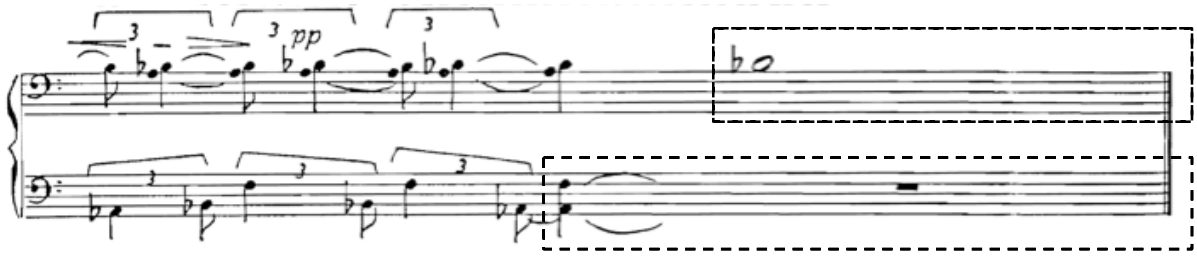


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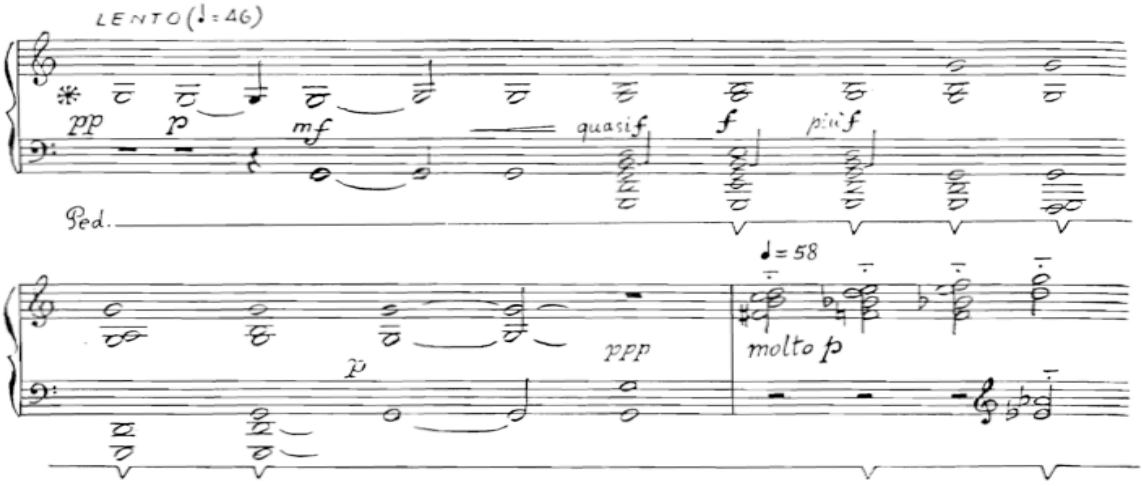
Figure 3.14. Sustaining, slow-paced passage at the beginning of the eighth movement.



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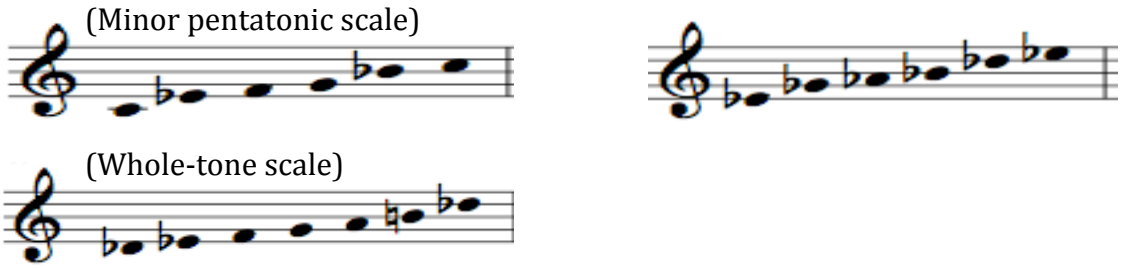
Pentatonic and whole tone scales are commonly found throughout the suite, suggesting the sound of Eastern music. A pentatonic scale contains five core notes with the consecutive intervals of a minor 3rd, major 2nd, major 2nd, and minor 3rd. While both Scelsi and Takemitsu frequently use pentatonic scales in their music, the latter has his own figuration of pentatonic elements.

The whole tone scale contains six core pitches that are all a whole step apart. While this scale creates a sense of ambiguity due to the regular distance between the neighboring notes, it also has the ability to create dissonant effects as it contains several augmented 4ths and augment 5ths. Figure 3.15 illustrates the minor pentatonic and whole tone scales used in the first movement, as well as the pentatonic scales used in the second movement.

Figure 3.15. The minor pentatonic and whole tone scales used in the first movement, and the pentatonic scales used in the second movement.

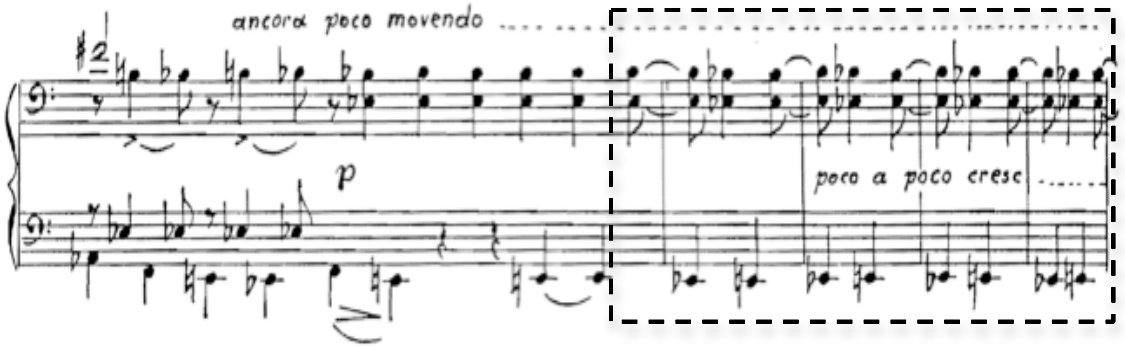
First movement



Second movement

Although a variety of note values are used, there are no time signatures as seen in conventional Western music, which suggests the lack of a fixed pulse in the suite. While bar lines are not regularly used, they appear occasionally to indicate measured rhythms. Figure 3.17 shows the use of bar lines to highlight a series of syncopated rhythms in the middle of the first movement.

Figure 3.17. A series of syncopated rhythms in the middle of the first movement.



Suite No. 9 has a special focus on sound resonance. Scelsi's creative use of the piano pedals plays an important role in producing unconventional timbres. Figure 3.18 provides Scelsi's tempo descriptions and pedaling instructions for each movement along with my remarks.

Figure 3.18. Scelsi's tempo descriptions and pedaling instructions for each movement.

Movement	Scelsi's tempo descriptions and pedaling indications	Remarks
I	*Calmo, senza espressione. Sempre con due pedali.*	Calm, without expression; Always with two pedals (the soft and sustaining pedals). Music in the low register. Bass clefs are used for both hands.
II	*Lentissimo* (beginning and end). *Con ped. ten. Appoggiare le dita sui tasti, premere profondamente e poi lasciar vibrare.*	Extremely slow with the use of the sustaining pedal (beginning and end). The performer should press his fingers on the key deeply and let the strings vibrate freely. Contrasting sections in the middle with fast trills and movement.

III	*Uguale, senza espressione. Sempre con molto pedale.*	Blankly throughout with static rhythms and melodies.
IV	*Non molto legato, ma sempre appoggiando profondamente. Ped. sempre tenuto.*	Use the sustaining pedal throughout. The movement begins with a monophonic melody. Contains irregular dotted or syncopated rhythms throughout. The climax includes sextuplets in the high register.
V	*Uguale, scorrevole. Sempre con moltissimo ped.*	Same expression from the beginning to the end with lots of sustaining pedaling. Fast motion in several areas.
VI	*Lento* (beginning and end).	Contrasts between the slow, quiet sections in the low register and the fast, loud sections in high register.
VII	*Uguale, inespressivo. Sempre morbido e con molto pedale, ma non troppo legato.*	Blankly from the beginning to the end. Static melodies mostly in the right hand. Use the sustaining pedal throughout.
VIII	*Lento* (beginning and end). *Ped. Appoggiare le dita sui tasti, premere profondamente e poi lasciar vibrare.*	At the beginning of the movement, the performer should press the sustaining pedal and then the keys deeply and let it vibrate.
IX	*Molto eguale - non troppo legato. Con poco ped.*	Consistent expression, with some use of the sustaining pedal. Melodic material in the left hand and arpeggiated accompanying material in the right.

There are two alternate plans of tempo usage in the suite. The first, appearing in the odd-number movements, uses one general tempo and character for the entire movement. The second, appearing in the even-number movements, uses contrasting tempos. These movements begin with a slow section using soft dynamics, then progress to a fast middle section using loud dynamics, and finally return to a slow section using soft dynamics. Except for the seventh movement that ends with a loud, accented note, all movements end with a fading away effect.

Figure 3.19. A summary of the characteristics found in *Suite no. 9.*

Classification	Characteristics of *Suite no.9*
Sound	Use of grace notes, accents, pitch oscillation, silence, and a generally quiet atmosphere.
Texture	Heterophonic texture.
Melody	Use of center tones and pitch oscillation. Use of enharmonic notes.
Rhythm	Use of a variety of note values. Measured rhythms are found in conjunction with occasional bar lines.
Scale	Use of pentatonic and whole tone scales.
Dynamics	Use of soft dynamics for the beginning and end of movement (ex. *pp-mf-pp*).
Tempo	While there are tempo markings, there are no time signatures and regular use of bar lines.
Form	Simple structures (ex. A-B-A′).

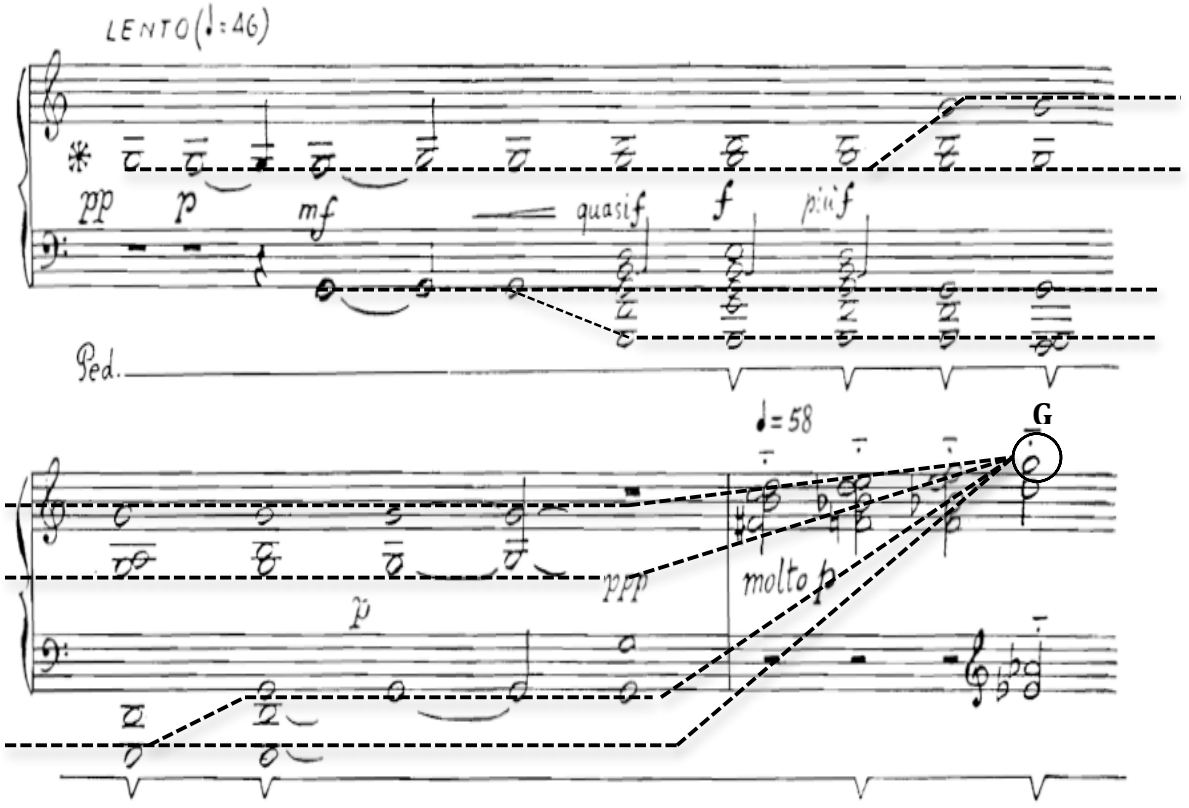
3.2 Cross-Cultural Concepts and Musical Elements in *Suite No. 9*

In his preface to *Suite No. 9*, Scelsi not only instructs the audience and the performer to appreciate the suite "with the greatest inner calm," but he also states that the piece is "a succession of episodes alternately expressing Time (or more precisely Time in Motion) and Man, as symbolized by cathedrals or monasteries, with the sacred sound *Om,*" all of which suggests references to Eastern traditions and concepts.[31] As mentioned in chapter two (section 2.2), the

[31] Giacinto Scelsi, Liner Notes in *The Piano Works 1*, Louise Bessette, Mode Records Mode 92, 2000, compact disc.

syllable *Om* is considered to be the most fundamental mantra, and it is also sacred and important in Buddhism, amongst other Dharmic religions such as Hinduism, Sikhism, and Jainism. The use of center tones and pitch oscillation in the suite may symbolize the concept of mantra or the practice of mantra repetition. For example, at the beginning of the eighth movement, the center tone, G, appears in various harmonies and configurations in a steady, slow tempo resembles the chanting of *Om* (Figure 3.20).

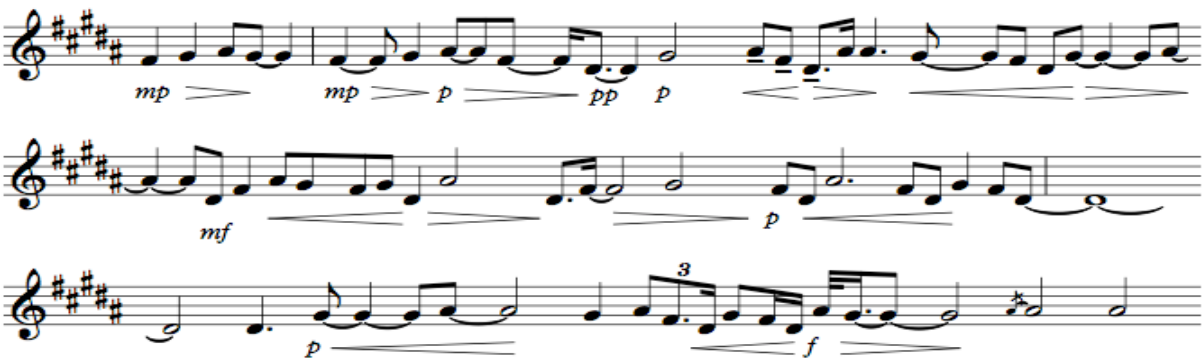
Figure 3.20. The beginning of the eighth movement; the center tone G appears in various configurations resembling the chanting of *Om*.



The circularity of "time and man," or time and existence, may be reflected in several aspects of the suite. The first is the use of pitch oscillation, where one pitch may represent time and the other represents existence. The second is the use of contrasting tempi and character throughout the suite. The sections or movements using slow tempi with soft dynamics may refer to the eternal time, and the sections that are more active may refer to man and existence. Lastly, the delicate balance between sound and silence may symbolize the correlation of time and man. The cycle of birth and rebirth, an important concept in the Buddhist traditions, may also be associated with the three musical aspects described above.

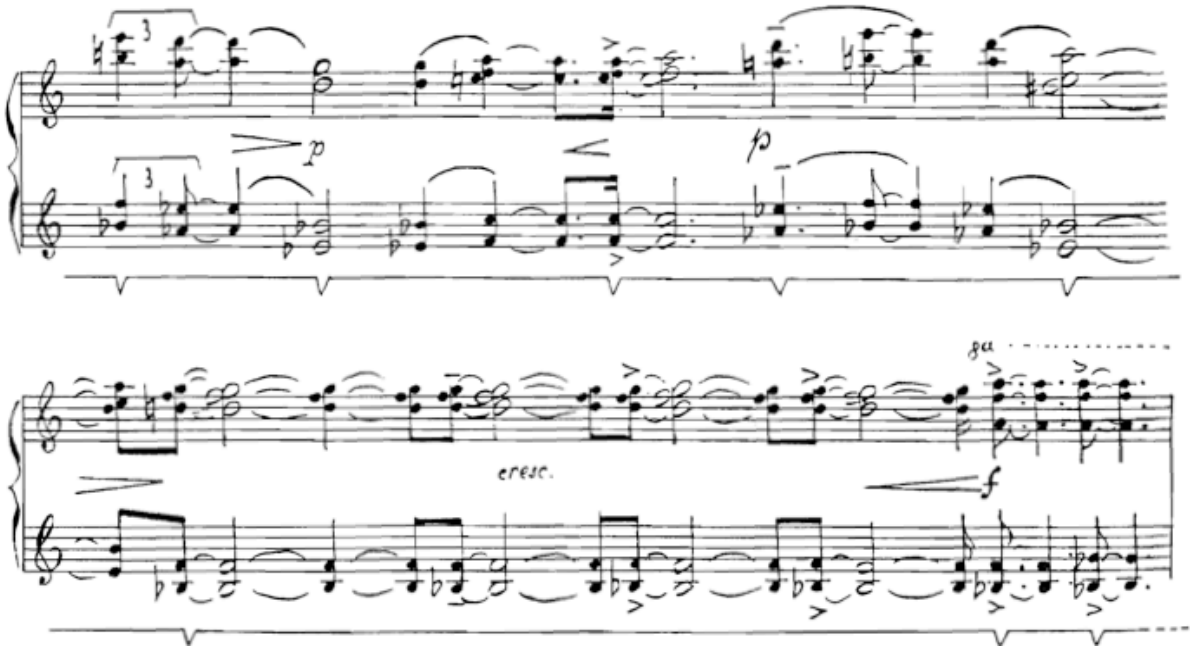
The absence of time signatures or regular bar lines in the suite resembles the lack of a regular pulse in Eastern music. In addition, there are passages with an improvisatory character, which may be connected to the oral tradition of improvised music, especially those of Eastern cultures. Figure 3.21 shows a melody with an improvisatory nature from the fourth movement. Without using any time signature, this example contains frequent tied notes and two occasional bar lines. The rhythms are rather complex, unstable, and without signs of any recurring pattern. The performer has considerable flexibility in interpreting the timing and the emphasis of the melody.

Figure. 3.21. A melody with an improvisatory character in the fourth movement.



In the absence of a regular pulse, an element commonly found in conventional Western music, the performer should observe the various accent marks carefully because they provide important hints for phrasing and emphasis. Figure 3.22 shows a homorhythmic passage from the eighth movement. The first system in the example contains two fairly irregular emphasis points marked with the symbols > and − respectively. The second system contains four relatively regular emphasis points, all marked with the symbol >. The frequent use of accents at the end of the example clearly indicates an increase of intensity along with the use of a crescendo.

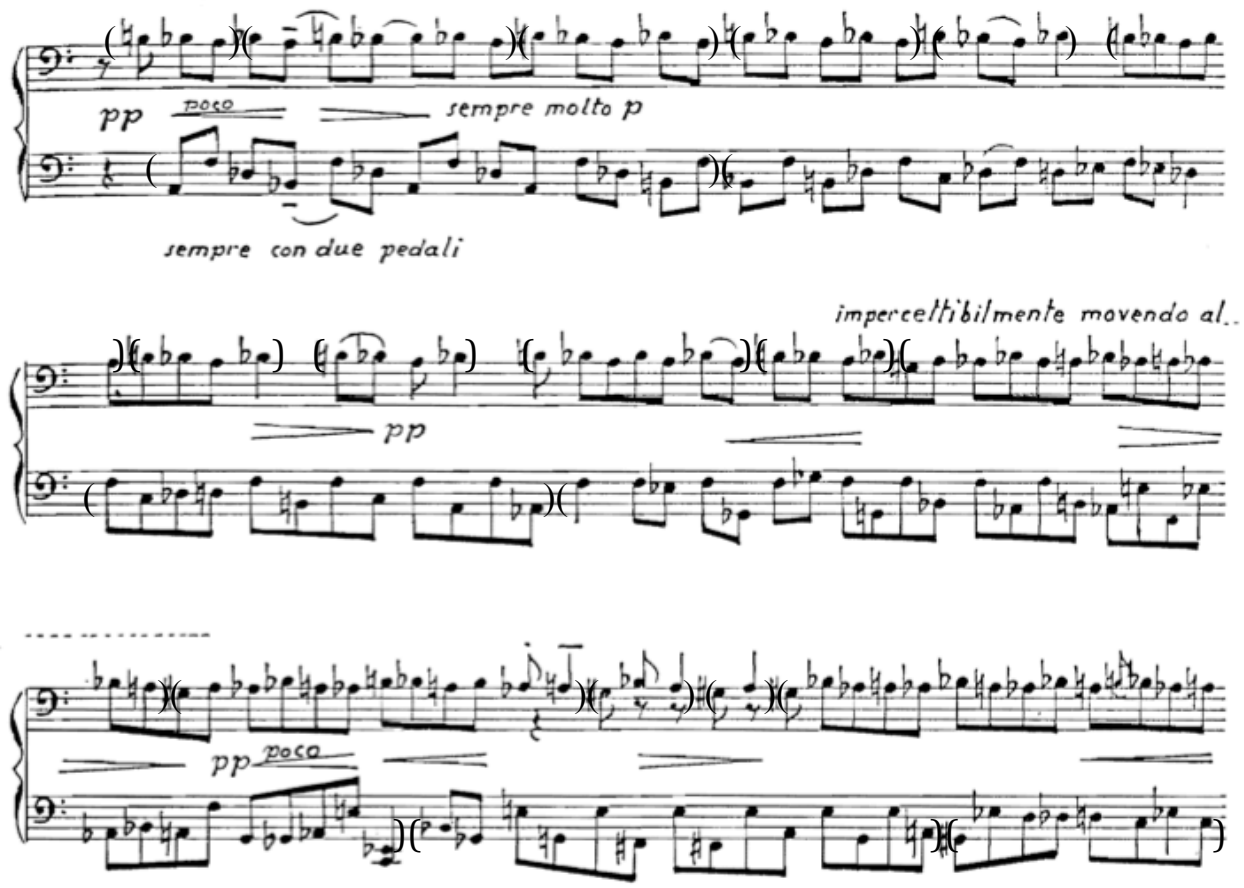
Figure 3.22. The use of accents at the beginning of the eighth movement.



This suite also emphasizes the melodic material, as one typically finds in traditional Eastern music. For example, in the first movement, small melodic units appear at irregular intervals in both hands, forming a heterophonic texture (Figure 3.23). The use of ostinato, or

repeated short melodic patterns, leads to the formation of larger phrases. The two melodic lines should not be considered as contrapuntal in a traditional Western vertical sense, as the correspondence between lines is merely incidental.

Figure 3.23. Heterophonic texture formed by small melodic units at the beginning of the first movement.



3.3 The Structure and General Characteristics of Takemitsu's *Rain Tree Sketch*

Composed in 1982, Takemitsu's *Rain Tree Sketch* for solo piano is one of his "water-themed" works that focuses on the sound produced by water.[32] It is also the first in Takemitsu's Rain Tree series, which was inspired by *The Clever Rain Tree* (1980), a novel by Nobel Prize winning author Kenzaburo Oe. Noriko Ohtake's book, *Creative Sources for the Music of Toru Takemitsu*, contains general information about *Rain Tree Sketch*, specifically noting that, "this composition may be a musical sketch with the purpose of visually revealing the mystic and opulent image of Oe's cosmic tree."[33]

Takemitsu is interested in showing various approaches to music and how they can coexist both in the East and in the West. The flexibility of his attitude shows the universality of his music. Ohtake notes that, "[in] about 1970 the Canadian composer Murray Schafer (b.1933) created a musical concept called 'Soundscape.' His music is meant to include all noise from the environment at the time of performance."[34] Takemitsu was deeply affected by this concept and he began to explore ways to integrate it into his work.

Similar to the approach of the French composers, Takemitsu seems to strive for an escape from conventional rules and restrictions, wanting instead to focus on the harmony and contrast of sound elements. As seen in Figure 3.26, fragments of both of the octatonic scales are present simultaneously, and the combination results in the formation of a chromatic scale. While the

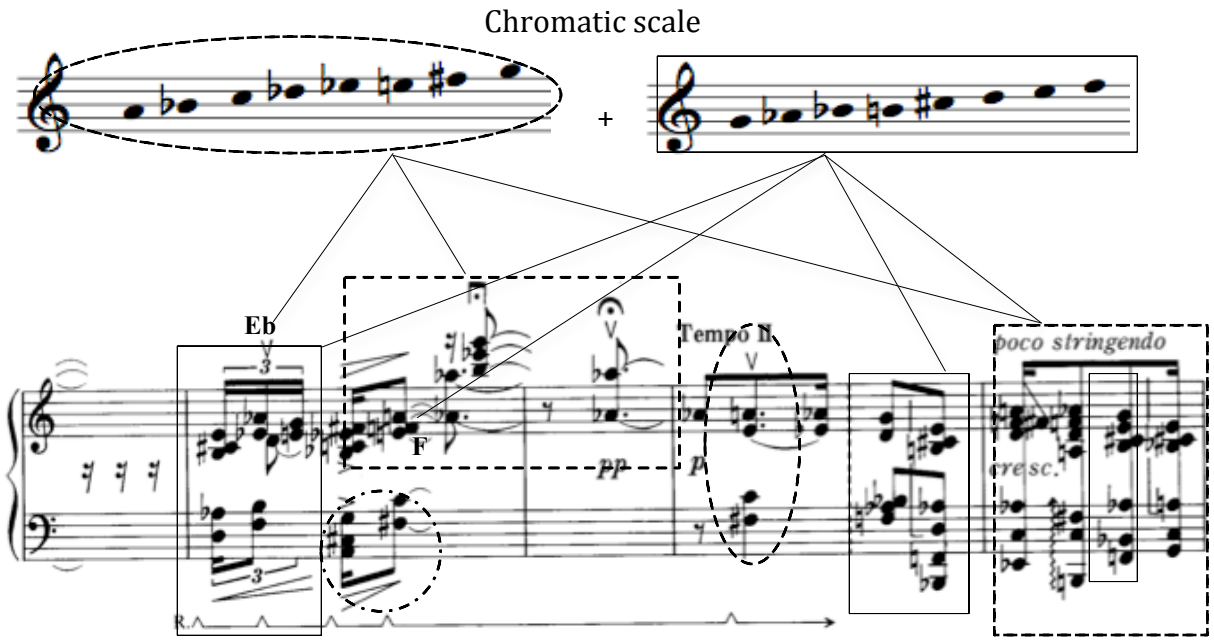
[32] Toru Takemitsu, *Rain Tree Sketch* (Tokyo: Schott Japan, 1982).

[33] Noriko Ohtake, *Creative Sources for the Music of Toru Takemitsu* (Cambridge: Scolar Press, 1993), 87.

[34] Ohtake, op. 14.

piece is atonal, the octatonic elements make the sound seem less perceptually chromatic than twelve-tone music, and thus it sounds more familiar to listeners used to hearing tonal music.

Figure 3.26 Fragments of octatonic scales combined to create chromatic elements in mm. 29-32.

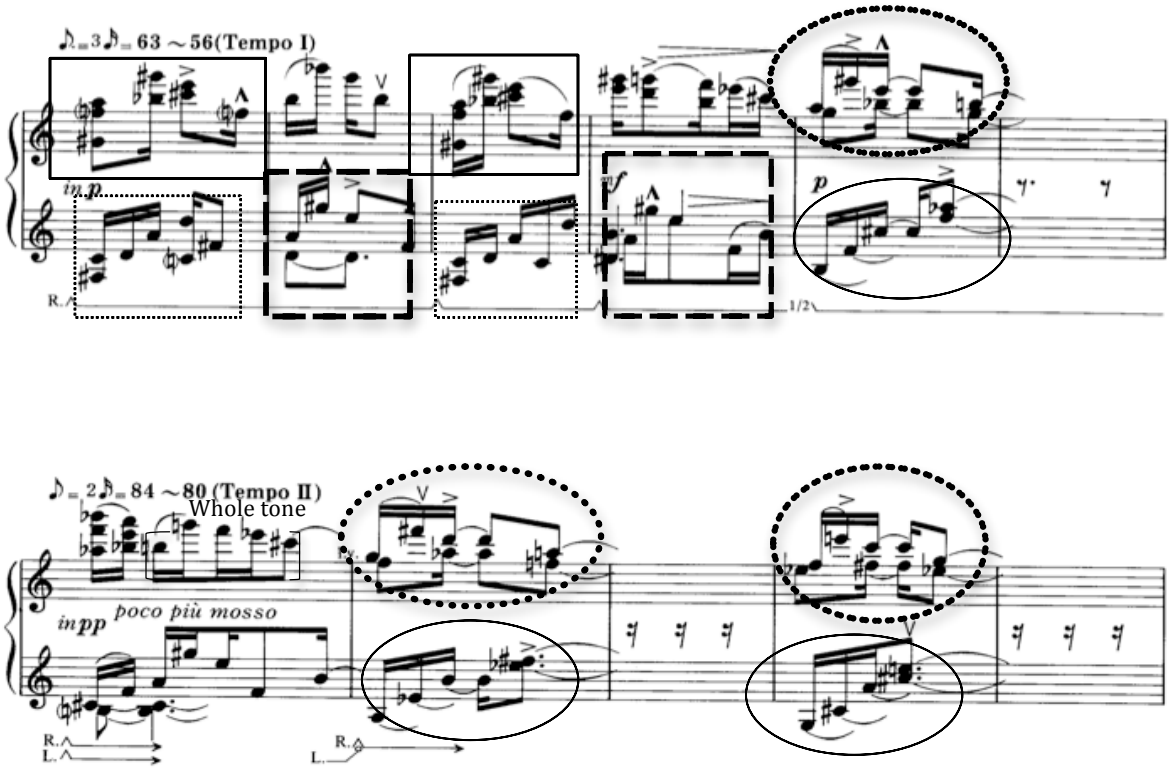


The title, *Rain Tree Sketch*, provides a conceptual framework for the symbolism of the piece, which would otherwise be impossible for the audience to guess from the sound alone. Known for his careful compositional planning, Takemitsu leaves us to imagine the connection between *Rain Tree Sketch* and the novel *The Clever Rain Tree* by Kenzaburo Oe.

Figure 3.27 shows the way that Takemitsu distributes cells with similar pitch material in a mosaic fashion. The way that pitch cells are distributed in a seemingly random fashion suggests the scattering of raindrops on the score. When considering a composer like Takemitsu who

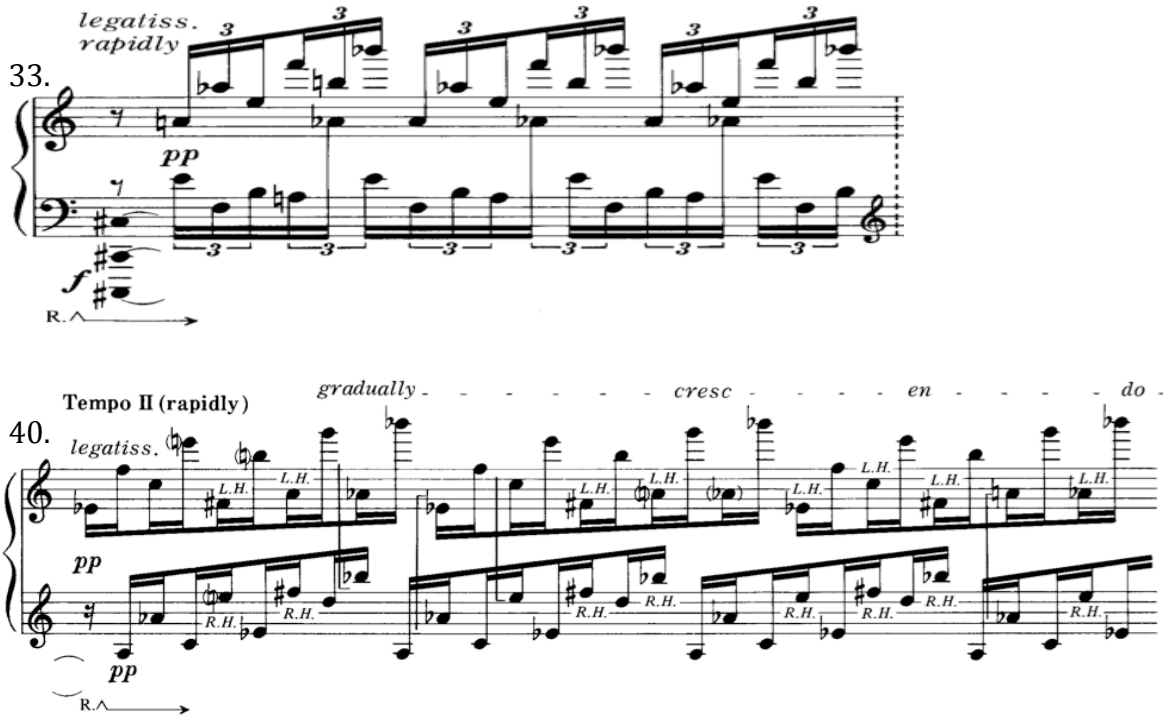
places so much emphasis on symbolically representing nature, it is quite plausible that he designed the score to be a visual representation of raindrops.

Figure 3.27 Pitch cell mosaic suggesting rain droplets represented in the notation in mm. 1-11.



The material in figure 3.27 could be considered as a visual depiction of raindrops, but Takemitsu also offers an aural depiction of raindrops, as seen in figure 3.28. In addition to the sixteenth-note wide leaps in m. 40, as pointed out by Ohtake, the sixteenth-note triplets in m. 33 may also represent the sound of rain on tree leaves (see Figure 3.28). The listener may also use his or her imagination to visualize more details.

Figure 3.28 The imagery of raindrops in mm. 33 and 40.[35]



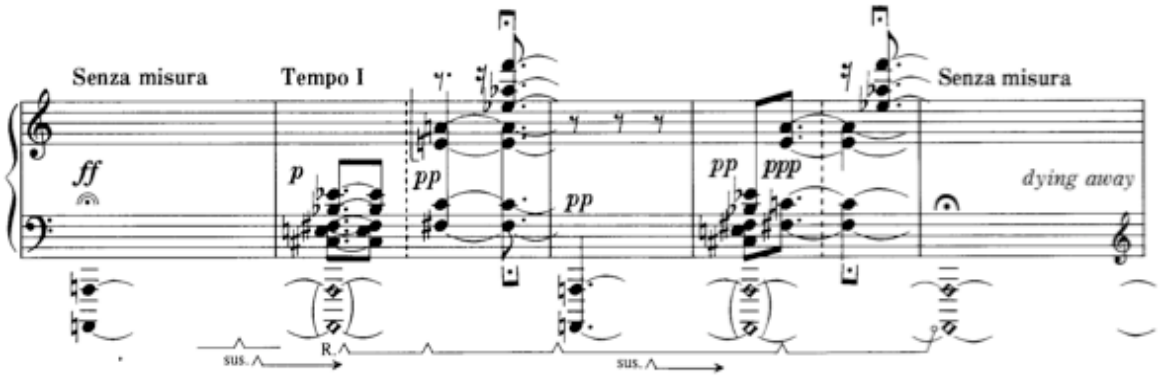
Rain Tree Sketch does not have a time signature. While bar lines are used, the length of each measure varies widely from two sixteenth notes (e.g., m. 15) to one whole note (e.g., m. 36). The variety of measure lengths and the use of complex rhythms seem to symbolize the image of a tree with intertwined branches of varying lengths.

Specific instructions on various aspects are given by the composer, including tempo, dynamic levels, pedaling, and musical expressions. While most of the piece is written in the high registers, sustained notes are used occasionally in the low register, which creates a sense of space

[35] Ohtake, 88.

and timbral contrast. Figure 3.29 illustrates a passage that covers the low, middle, and high registers.

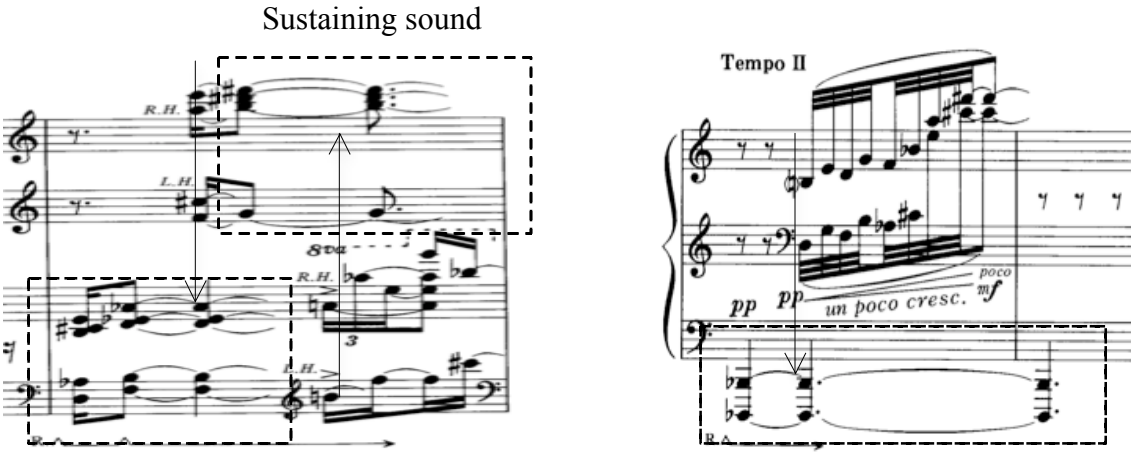
Figure 3.29 mm. 35-39, an example covering the low, middle, and high registers.



As stated in the preface to the work, Takemitsu uses abbreviations for the three pedals: R. stands for right pedal (damper), L. stands for left pedal (soft), and Sus. refers to the middle pedal (sostenuto).[36] In addition, he specifies the points where pedal use, pedal change, or pedal release is needed. For example, the performer should change the sustaining pedal before mm. 3 and 4, and he or she should use both the sustaining and soft pedals at the beginning of m. 7. With the use of the long, sustaining pedal, areas such as mm. 27 and 61 can even produce an effect that sounds like the overtone series (see Figure 3.30). Pedaling plays an important role in creating a soft and sonorous effect, as well as a hazy atmosphere for the piece.

[36] Takemitsu, *Rain Tree Sketch*, front matter.

Figure 3.30 Sustained pedal producing an overtone effect in mm. 27 and 61.



Different types of accents and fermatas are also explained in the preface (Figure 3.31). "There are three different types of accent: ^, >, v. ^ indicates the use of a strong accent; > indicates that a moderate accent should be used, and v is used to indicate the use of a soft accent."[37] Areas such as mm. 2 and 12 require the performer's special attention on touch and articulation, as the three kinds of accents are used in quick succession. The three kinds of fermatas used in the piece are: 𝄐, 𝄐, and 𝄐. 𝄐 represents the longest pause, and is used only in m. 35 and the final measure. 𝄐 is a medium pause, and 𝄐 is a short pause.[38]

[37] Takemitsu, *Rain Tree Sketch*, front matter.

[38] *Ibid*.

Figure 3.31 Three types of accents and fermatas.

Accent	Intensity	Fermata	Length
	Strong		Very long
	Moderate		Medium
	Soft		Short

Takemitsu writes that, "most of the piece is played softly, except for those few places where the dynamics are specifically indicated."[39] Indeed, the piece is mostly quiet, using the soft dynamics like *ppp, pp,* and *p.* Loud dynamics, such as *f* and *ff*, are used only occasionally and always in a temporary fashion, as in mm. 33, 34-35, and 42-43. Of the three loud areas, m. 35 is undoubtedly the climax, where an octave on A marked as *ff* is used in the low register and is to be held as long as possible. The few measures that follow indicate vividly the palette of timbres produced in the different registers of the piano.

Takemitsu is also very specific with tempo indications, and he uses two sets of tempo markings: ♪.=3 ♪=63~56 (Tempo I), and ♪=2 ♪=84~80 (Tempo II), which appear alternately in the piece.

There are five sections in *Rain Tree Sketch*, and they can be labeled as: Introduction, A, B, A', and Coda. Figure 3.32 shows a summary of the characteristics of each section, including the use of silence, tempo changes, and pitch materials.

[39] *Ibid*.

Figure 3.32 The structure and characteristics of *Rain Tree Sketch.*

Sections	Measure nos.	Points of silence	Tempo Changes	Remarks
Intro.	1-6	1	I	Use of a whole tone, octatonic collection, and tritone. Rhythmic irregularity.
A	7-30	8	II-I-II-I-II-I	Use of octatonic scale, and tritone. Contains imagery of the tree expressed as a sound mosaic. Use of combined, isolated and dotted bar line.
B	31-46	0	II-I-II-I	Use of chromatic, octatonic, and whole tone scales, and many tritones. Contains imagery of the raindrops. Use of long, sustained octaves in the low register. Climax at m. 35. Dotted bar lines.
A′	47-60	6	II-I	Uses mainly octatonic and whole tone scales, and tritone applied. Repeated Section A.
Coda	61-65	0	II-I	Use of octatonic scale. Long sustained octaves on Bb in the low register at the end of the piece.

Only six measures in length, the introduction contains important pitch material, including the various intervals that will appear in the later sections (Figure 3.33). Both hands have different pitch collections between them. In the left hand, there is a whole tone scale including C, D, E, F#, and G#, but without the A#. In the right hand, there is an octatonic scale including C#, D, E, F, G, G#, Bb, and B♮. The pitch materials alternate or share from each collection, and there are occasional pitches present that do not belong to either whole tone or octatonic scale, such as A. Measure 5 is closely connected to mm. 8 and 10; the former is transposed down a major 2nd from m. 5, and the latter is transposed further down another major 2nd from m. 8 (Figure 3.34). The introduction contains only one pause (in m. 6) and uses only one tempo.

Figure 3.33 Pitch materials introduced in mm. 1-6.

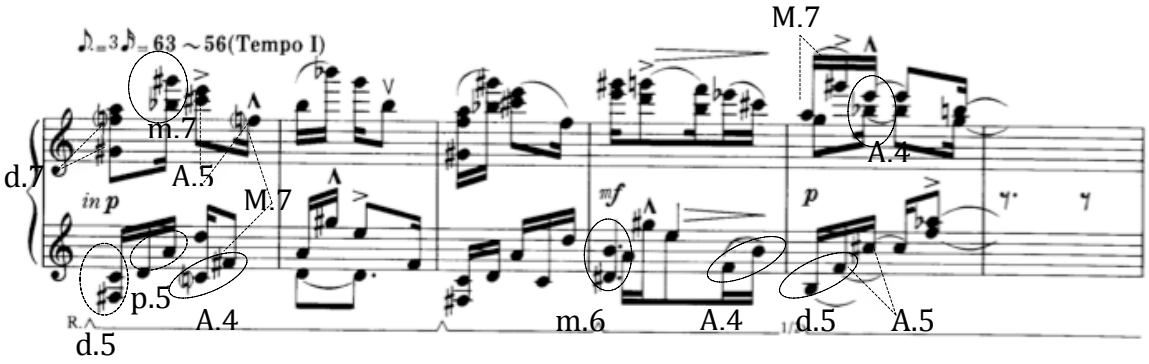
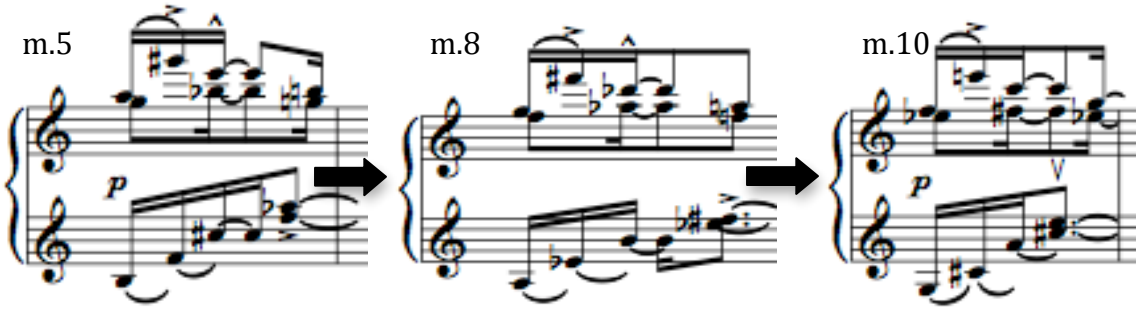


Figure 3.34 Connection between mm. 5, 8, and 10.



Motivic transposition also occurs in other areas, such as between mm. 14-15 and 16-17 that are a major second apart, and between mm. 16 and 18 that are a minor third apart (Figure 3.35). The A section contains various pitch materials with m. 20 even consisting of a chromatic scale. For example, a melody in the right hand uses E-F#, F-E, D-C#, C#-C♮, and B-Bb. Measure 21 indicates multiple chords between both hands, which are from chromatic and octatonic collections. The pitch F is sustained from m. 23 and comes from the octatonic scale. Measure 25 in the right hand presents a whole tone scale through the pitches Bb, C, D, and E. Tritones appear sporadically in mm. 25, 27, and 29.

Section B (mm. 31-46) explores new timbres and textures, using clusters, glissandi, continuous motion, and sustained notes in the low register (Figure 3.36). The imagery of raindrops can be found in mm. 33 and 40 using simultaneous wide leaps in contrary motion. As mentioned earlier, the climax of the piece is in mm. 34-35 with the dynamics *f* and *ff*. Pitches from various chromatic, octatonic, and whole-tone scales are used. There seems to be an emphasis on the intervals of a minor second and minor seventh in this section. There are no definable points of silence in this section.

Measure 41 is a good example of how various scale types are combined to create chromaticism. The pitch material of the right hand is taken from octatonic 1, and the pitch material of the left hand is taken from both octatonic scales, which are combined to create a chromatic scale (see figure 3.36).

Figure 3.37 consists of an octatonic scale in mm. 42-43, and m. 44 involves chromatic collections of Bb-B♮-Bb and Eb- E♮-Eb, and a whole tone (C#-Eb-F-G-A-B) or tritone in bottom line with an augmented fourth and diminished fifth. A whole tone melody is used with an octatonic scale of left hand in m. 45. Those two measures, mm. 45-47, connect section B to section A'.

Section A' (mm. 47-60) is an exact repetition of mm. 7-20 from section A (Figure 3.37). Octatonic and chromatic elements reappear in Section A'. The coda uses materials from both sections A and B. The emptiness in mm. 62 and 65 resembles the empty measures in section A. The sustained octaves in the low register and the fast arpeggios that follow resemble elements from section B. Pitches from the octatonic scale are used in the coda. Takemitsu applies the longest fermata in the last measure while holding the damper pedal, which creates an effect

similar to overtone oscillation. This lingers until the power of the sound energy of a sustained Bb is exhausted, which marks the end of the piece (m. 65) (see Figure. 4.38).

Figure 3.35 Section A of pitch materials in mm. 16-27.

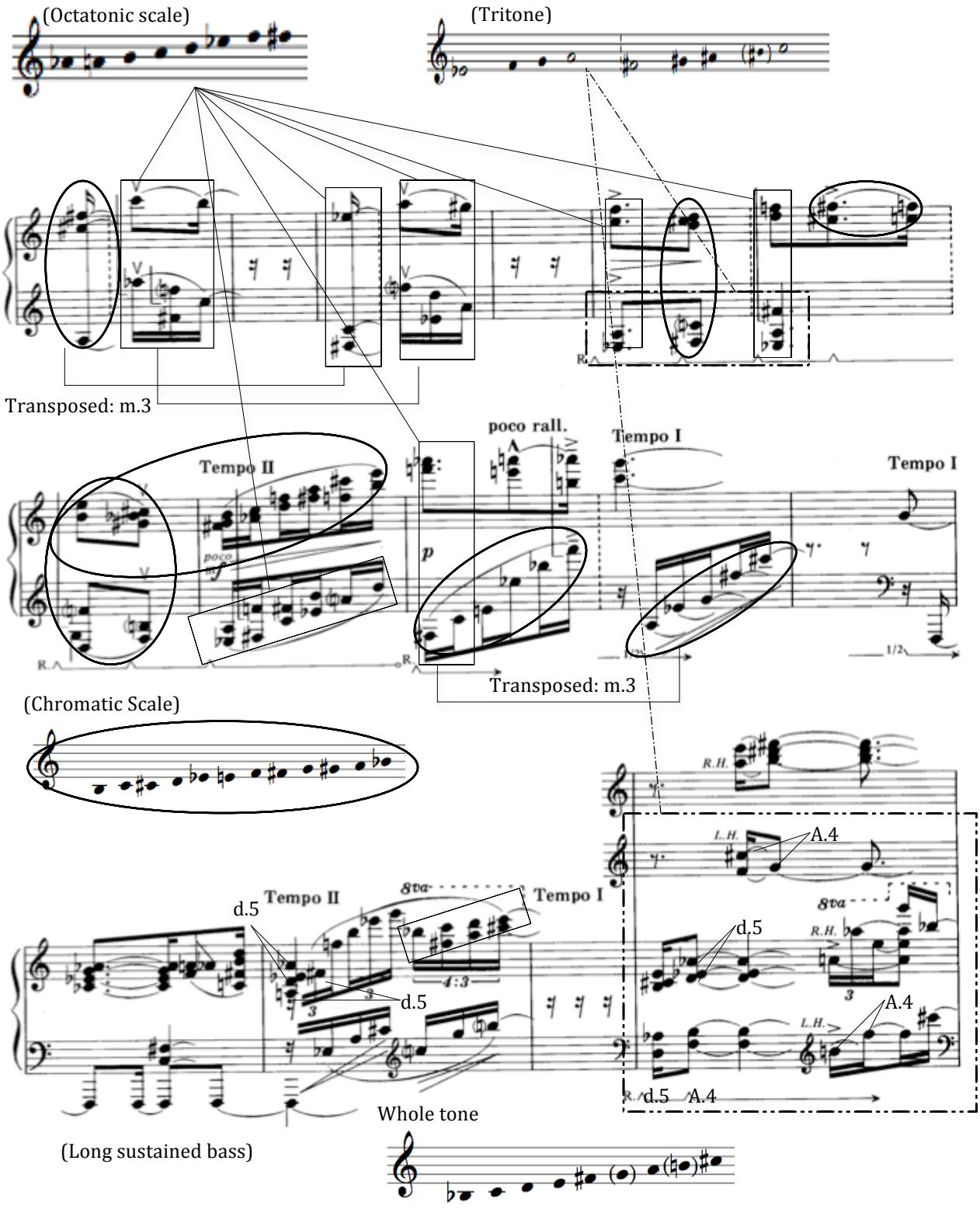


Figure 3.36 Section B pitch organization in mm. 33-41.

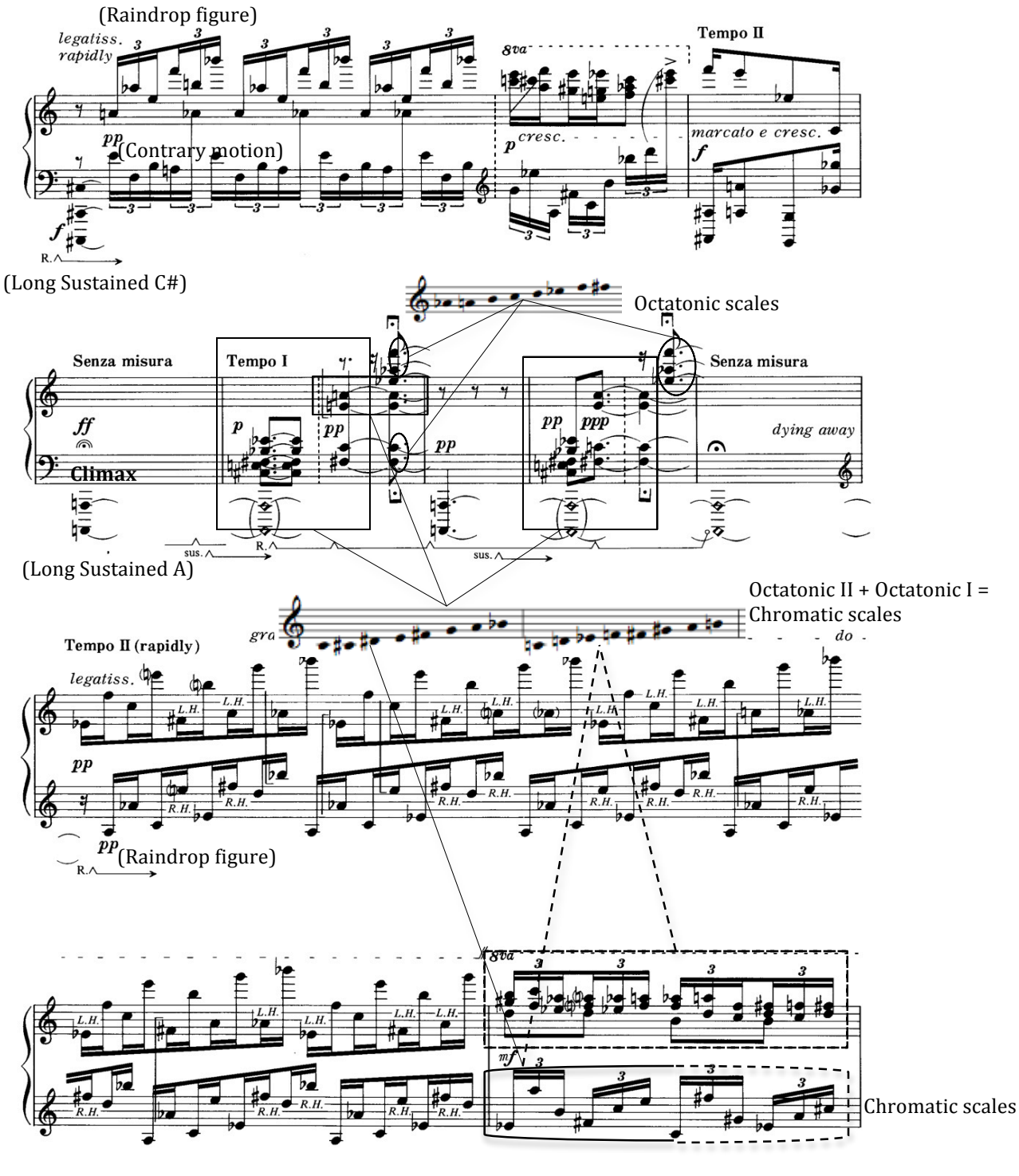


Figure 3.37 The pitch organization of section B and A' at mm. 42-53.

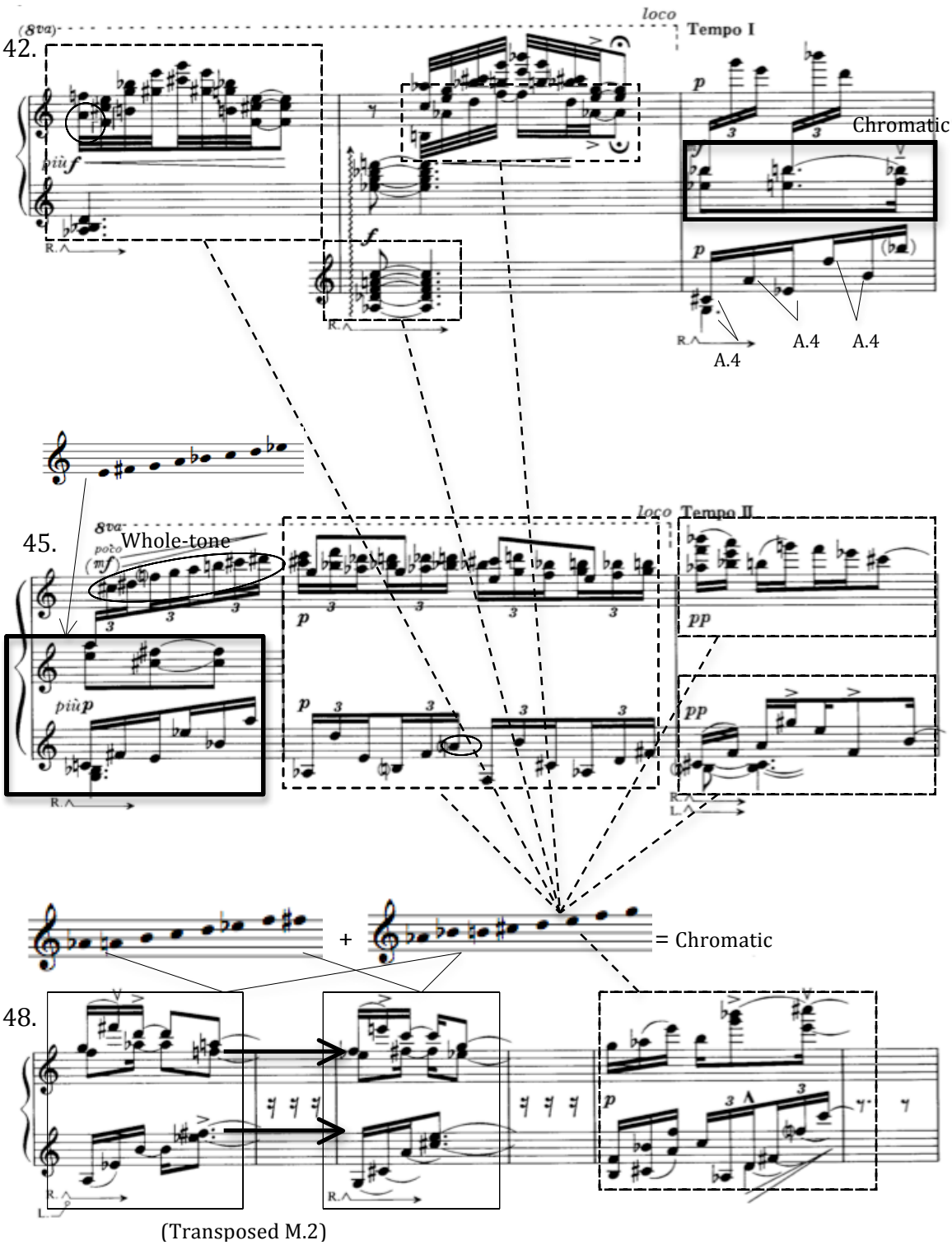
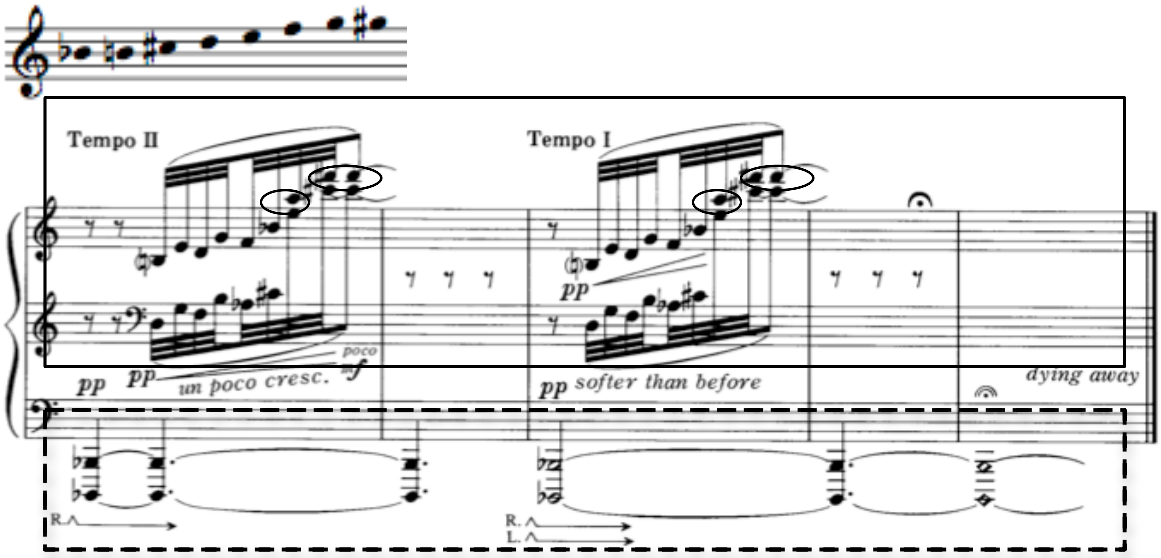


Figure 3.38 Coda, mm. 61-65.



(Long Sustained Bass)

In general, *Rain Tree Sketch* illustrates the use of Western musical elements, which are summarized as follows (Figure 3.39):

Figure 3.39 The use of Western musical elements in *Rain Tree Sketch*.

Musical Elements	Description
Sounds	Pitches in different registers, pauses, specific accented notes, and specific dynamics. Several appearances of minor seconds, augmented fourths (tritone).
Timbre	Soft, quiet, overtone sonorities.
Textures	Series' of block chords, long sustained notes accompanying faster figurations, arpeggiated patterns, and ambiguous textures.

Scales	Use of octatonic, whole tone, and chromatic scales.
Tempo	Two alternating tempos indicated by metronome markings.
Rhythm	Complex rhythms with triple, quintuple, and sextuple note groupings, and combinations of each across both hands.
Structure	Introduction - A - B - A' - Coda.
Influences	Messiaen, Debussy, and Ravel.
Structure	Structured, used of Western notation.

3.4 Cross-Cultural Influences in *Rain Tree Sketch*

Around 1960, Takemitsu's music did not distinguish between and separate each of the various aspects of Western and Japanese music that he had combined in his own language. Aspects of each musical culture remained in his music as he was gaining a new awareness and understanding of Japanese traditions along the Western cultural influences that he had experienced early in his career. In my opinion, Takemitsu did not initially see Western and Japanese cultures as equivalent, probably due to the vast cultural and geographical separation; however, the heterogeneity of his later works indicates that he began to reconcile these two seemingly disparate cultures into a synthesis. He was directly influenced by French composers of the mid-twentieth century, and it is evident that his early work was affected almost exclusively by Western styles rather than by traditional Japanese music. In his book, *Confronting Silence*, Takemitsu expressed his musical worldview that "for me, a Japanese, the West was a single enormous mirror. The strong reflected light of that mirror overwhelmed the light of other

cultures. But since I became aware of Japanese traditions, quite naturally I became interested in the reflection of other mirrors. Japanese culture reflects the influence of those other mirrors."[40]

Takemitsu's music is very much inspired by natural elements. Nature themes appear in the titles of many of his other compositions, including *Winter* (1971), *Garden Rain* (1974), and *In the Woods* (1995). This interest in nature themes is closely related to Zen philosophy, which plays an important role in Takemitsu's mature compositions. *Rain Tree Sketch* contains frequent points of silence, and many of these points embrace the resonance of previous sonic materials such as overtones. The sound color naturally shimmers in the air as it dies away against a backdrop of notated silence. Silence shares a great deal with the Japanese concept of *Ma*, which Takemitsu discusses in an interview on the expression of time:

> *Ma* is not only a concept in time; it is at the same time very spatial, a spatial thing, I believe. *Ma* is, perhaps… oh, *ma* is a very philosophical term… *ma* cannot be dominated by a person, by composer. Of course, *ma* can never be determined. *Ma* is the mother of sound and should be very vivid. *Ma* is living space, more than actual space… The concept of *ma* is one special form of recognition in the universe, in the cosmos. *Ma* is the big universe, and man is very little, small. We feel the big space-*ma*. This is most primary. Man is part of nature- no less, no more.[41]

Thus, Takemitsu offers the concept of silence as a metaphor for human life with silence as a part of sound just as man is only a part of the universe. In music, silence is the part where nature is articulated without human influence. On this point, Lieberman Fredric writes:

> An intriguing innate characteristic of sound seems to be related to its transitory character. A theme of continual change can be identified as characteristics of sounds as it freely moves from tone to tone, and finally arrives at silence. Zen music emphasizes this free movement and the collaboration of different sounds, or coalescing, which is why it refuses to establish fixed pitch levels as building blocks. Therefore, longer melody lines

[40] Confronting Silence, 92.

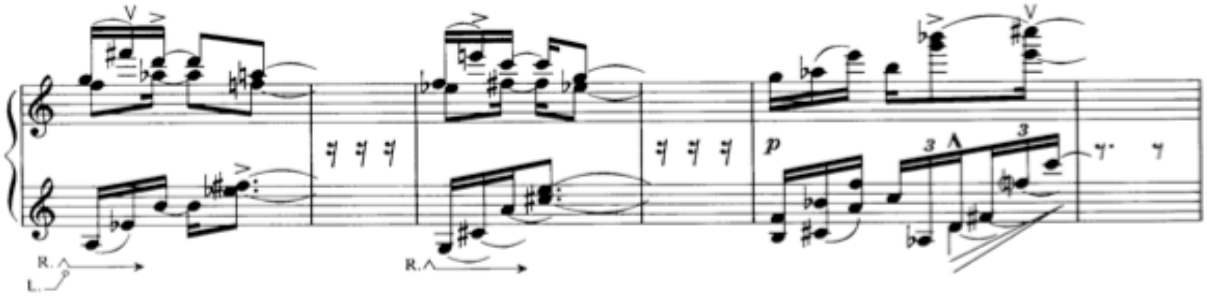
[41] Toru Takemitsu, Tania Cronin, and Hilary Tann, "Interview of 'Afterword,'" *Perspectives of New Music* 27, no.2 (Summer 1989): 212-213.

developed from such sounds are not limited by a fixed architectonic structure, but rather exposed to free movement from indeterminate.[42]

The sounds and silences in the work are carefully planned and notated, passages indicated with sustaining slurs and pedal markings are in fact a part of both sound and silence. Moreover, the alternation of sound and silence, as seen in mm. 48-53, seems to reflect the dichotomy of existence and nonexistence in Buddhism (Figure 3.40). Silence is a characteristic factor of section A, but it does not appear in section B.

Rain is not only part of nature, but also part of the water cycle. The water cycle is not only part of nature, but also part of the cycle of life and death, which is an important concept in Zen philosophy. The cycle of life is not only part of human existence, but part of nature as well. In *Rain Tree Sketch,* Takemitsu expresses the circularity of life using the musical form A-B-A', where the A represents birth, the B represents life and death, and the A' represents the rebirth of the cycle.

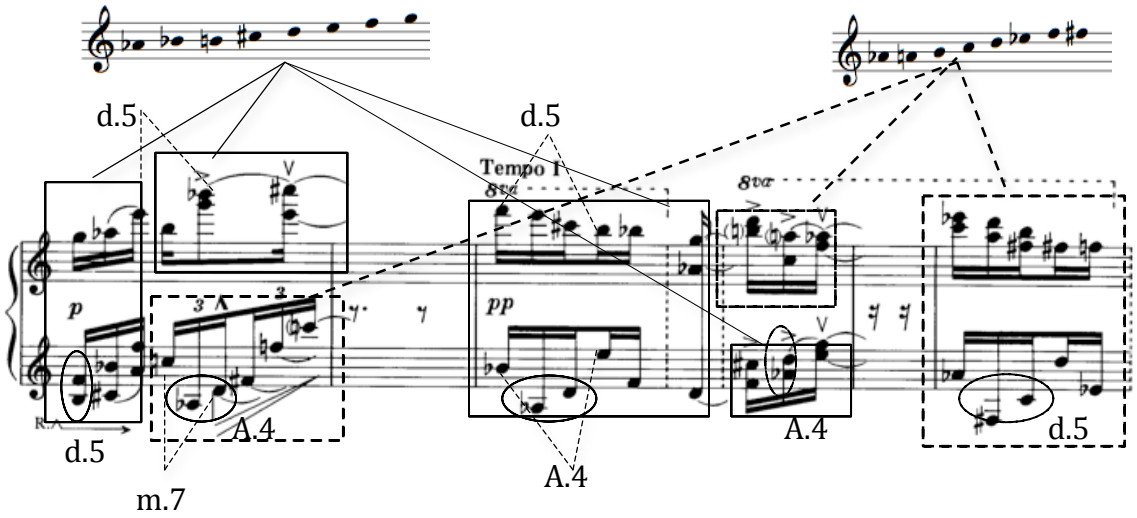
Figure 3.40 The alternation of sound and silence in mm. 48-53.



[42] Fredric Lieberman, "Zen Buddhism and Its Relationship to Elements of Eastern and Western Arts," (accessed March 30, 2014) http://artsites.ucsc.edu/faculty/lieberman/zen.html.

Characterized by the colorful treatment of timbres, *Rain Tree Sketch* is inspired by the music of three French composers: Messiaen, Debussy, and Ravel. The use of tritones and octatonic scale reflects Messiaen's method of pitch organization (see Figure 3.41); and the sonorities, registers, and timbres as well as the use of whole tone scales reflect the influence of Debussy (see Figure 3.42). As Jie Deng Lu has observed, Takemitsu's employment of a "triplet rhythmic texture, along with a dramatic contrast in dynamics, *pp* to *f*, creates the same fantastic effect that Ravel does in *Ondine.*"[43] Figure 3.43 illustrates a comparison of two similar passages, one from *Rain Tree Sketch* and the other from Ravel's *Ondine*. The atmosphere of *Rain Tree Sketch* resembles the music of the French composers with rhythms and dynamics reminiscent of Debussy and pitch clusters suggestive of Messiaen. A Western-style symmetrical A-B-A' structure is used with the recurrence of the first theme in m. 47.

Figure 3.41 Examples of octatonic scales and tritones in *Rain Tree Sketch*, mm. 12-16.



[43] Jie Deng Lu, "A Pedagogical Approach to Selected Piano Works by Toru Takemitsu" (DMA diss., University of Illinois at Urbana-Champaign, 2006), 5.

Figure 3.42 Use of the whole tone scale, m. 45.

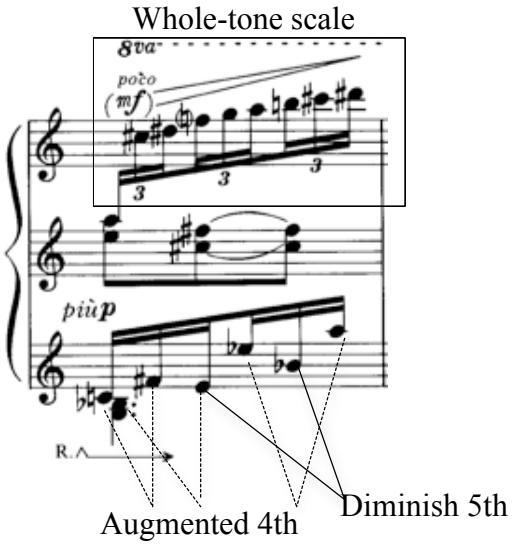
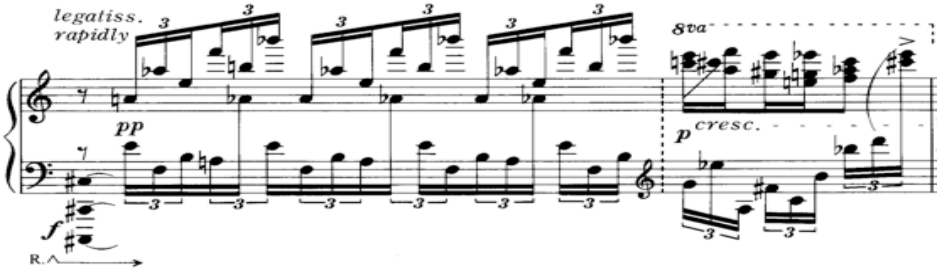
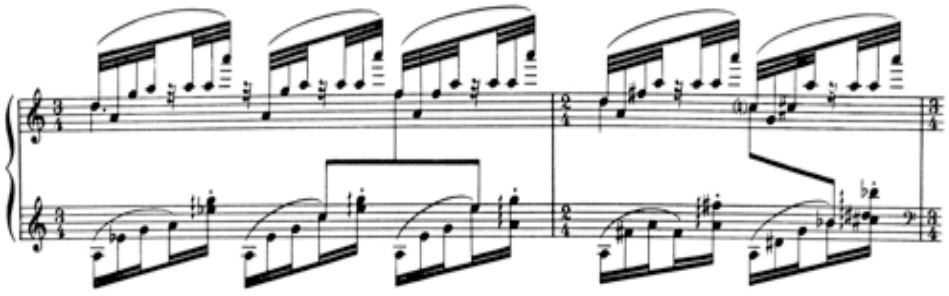


Figure 3.43 Triplet rhythmic figures in m. 33 of *Rain Tree Sketch* (top) and in mm. 54-55 of Ravel's *Ondine* (bottom).

(Rain Tree Sketch)



(Ondine)



CHAPTER 4

AN ANALYSIS OF SCELSI'S *QUATTRO PEZZI SU UNA NOTA SOLA* AND TAKEMITSU'S *GREEN*

4.1. The Structure and General Characteristics of Scelsi's *Quattro Pezzi Su Una Nota Sola*

In the previous chapter, two piano pieces were used to demonstrate and classify various musical elements as Eastern and Western, and now the focus will turn to orchestral works. Because the orchestra allows for more possibilities in terms of timbre and texture, we can now expand upon these Eastern and Western features. As already noted in chapter two, some types of vibrato, monophony, heterophony, the use of single notes, pentatonic scales, and dynamic interpolation are significant features of Eastern musical thought. Rather than focusing on harmonic and melodic complexity, as is the case in Western music, Eastern music is more concerned with timbral complexity and single sounds in themselves. Each of Scelsi's *Quattro Pezzi* for orchestra is based around a single note. These are presented as long sustained sounds, combining different timbres and sounds together. Because Scelsi uses single pitches, he places much more emphasis on creating an ever-shifting array of complex timbres involving overtones and microtones. These are all important elements of Eastern musical aesthetics.

Scelsi wrote *Quattro Pezzi su una nota sola* in 1959 for a twenty-six-member chamber orchestra. It was then premiered in Paris under the baton of Maurice Le Roux (1923-1992), on December 4, 1961.[44] Performances of Scelsi's music were extremely rare occurrences because he

[44] Todd M. McComb, "Scelsi: Orchestral Work (survey)" (1991), http://www.medieval.org/music/modern/scelsi/orch.html.

usually declined to have his own works played. As a result, few recognized the importance of his music during his lifetime. When the work was performed again at the opening of the International Festival of Contemporary Music in Cologne in 1987, Scelsi was still virtually unknown.

The work consists of four movements, and each has a different central tone (F, B, Ab and A♮, respectively). Although there is no traditional formal design present from a Western perspective, Scelci uses microtones and the golden ratio to create a large-scale shape to the work, which makes a climax possible. Each movement uses parts of a quartertone scale centered on a single pitch. Each center tone divides the intervallic span by half. Starting with an octave built on F, the center pitch of the second movement, B, divides the octave in half. Then, the center pitch of the third movement, Ab, divides the half-octave into a quarter octave. Finally, the center pitch of the fourth movement, A𝄲, divides the quarter octave into an eighth octave. Each subsequent movement divides the previous intervallic span by half. One should also note that the pitch (A𝄲) serves the same structural function as the note A, although its frequency is slightly higher.

Figure 4.1 Quartertone notations with the corresponding twelve-tone scale showing the central notes of each movement.

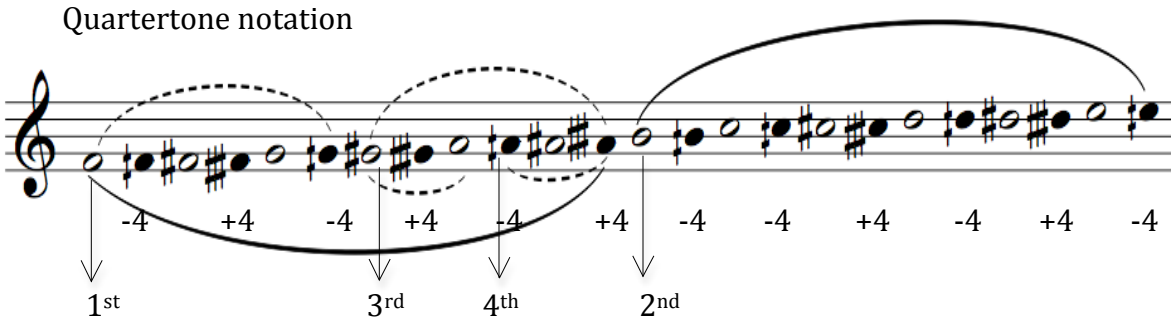
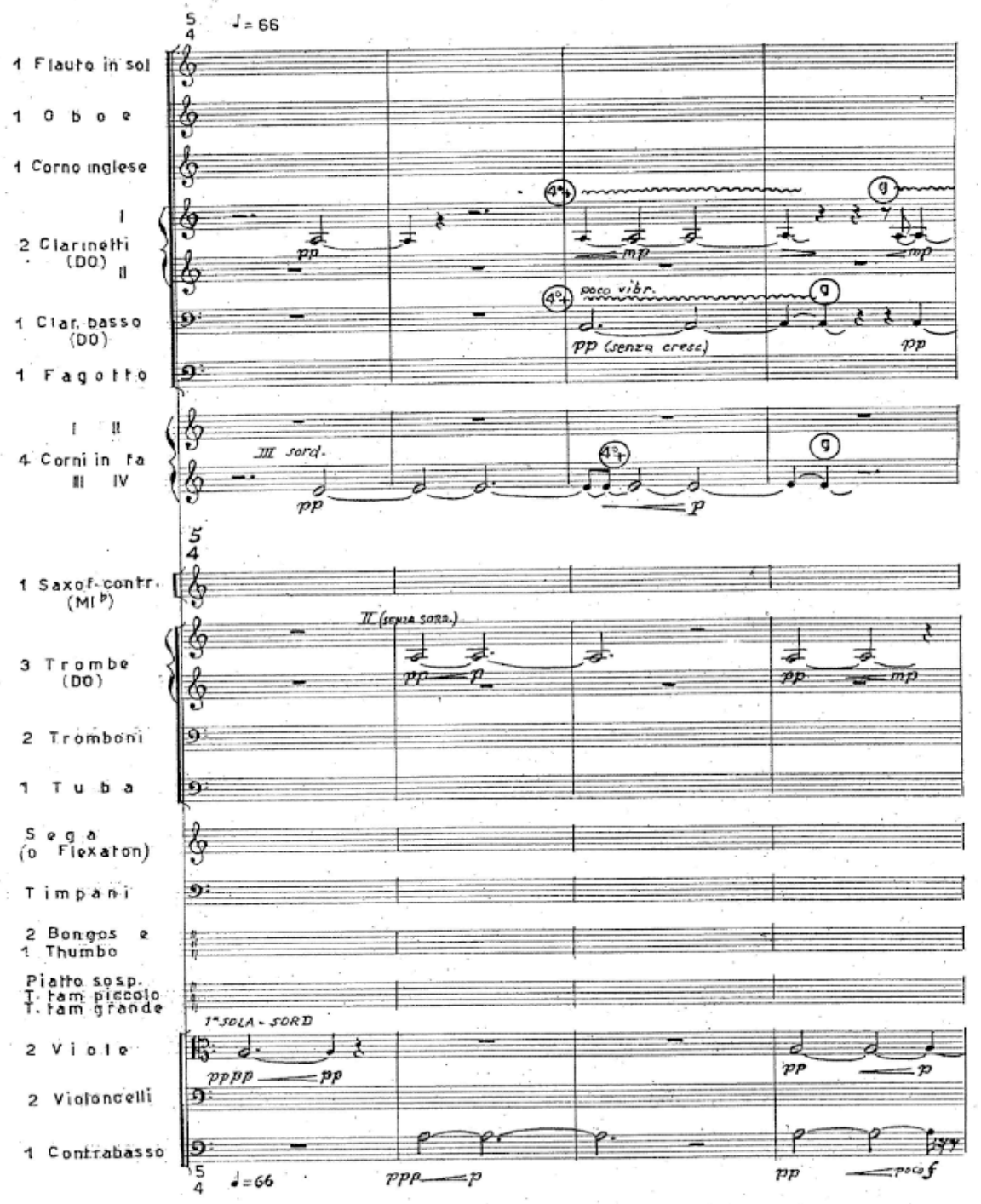
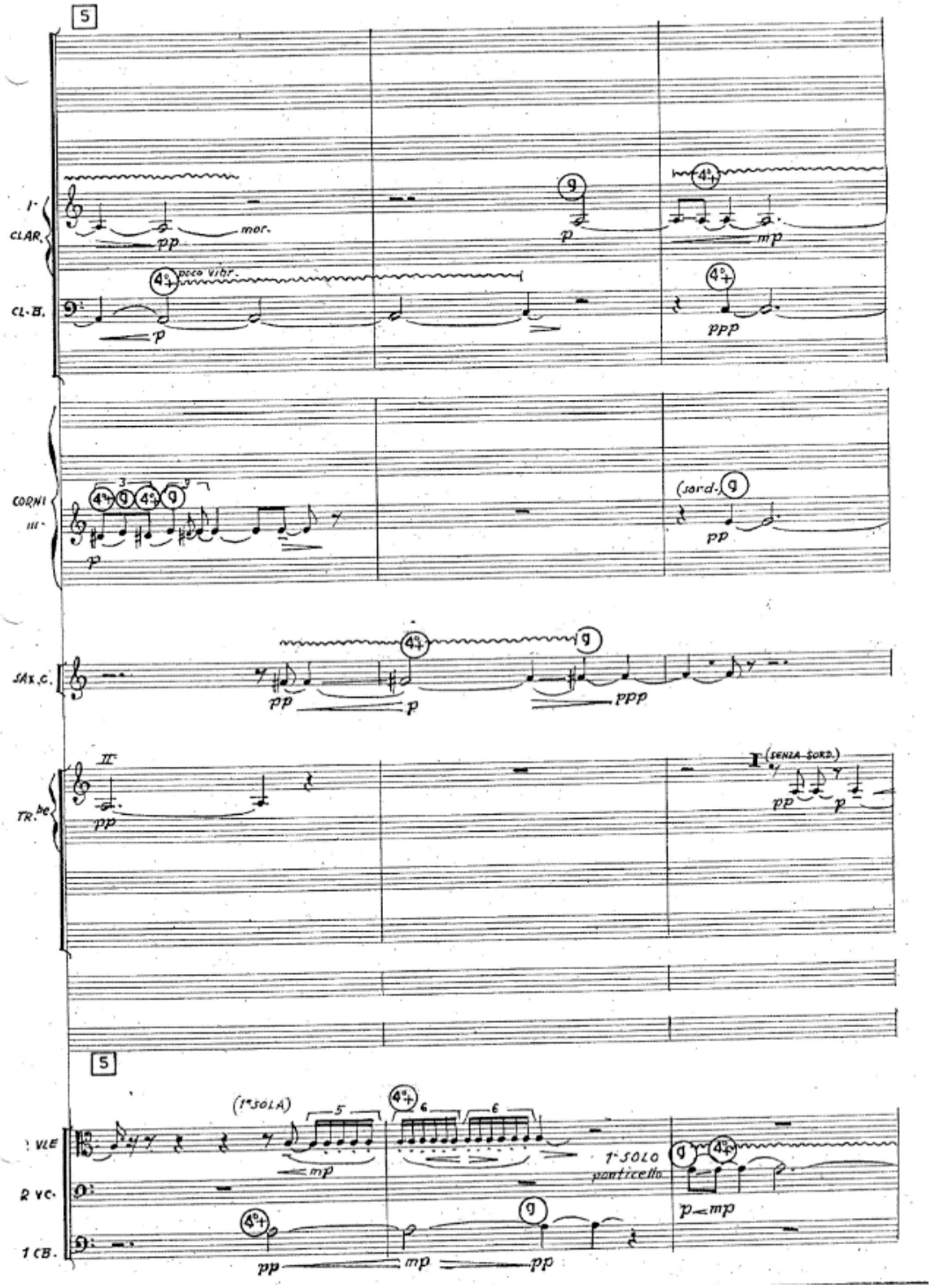


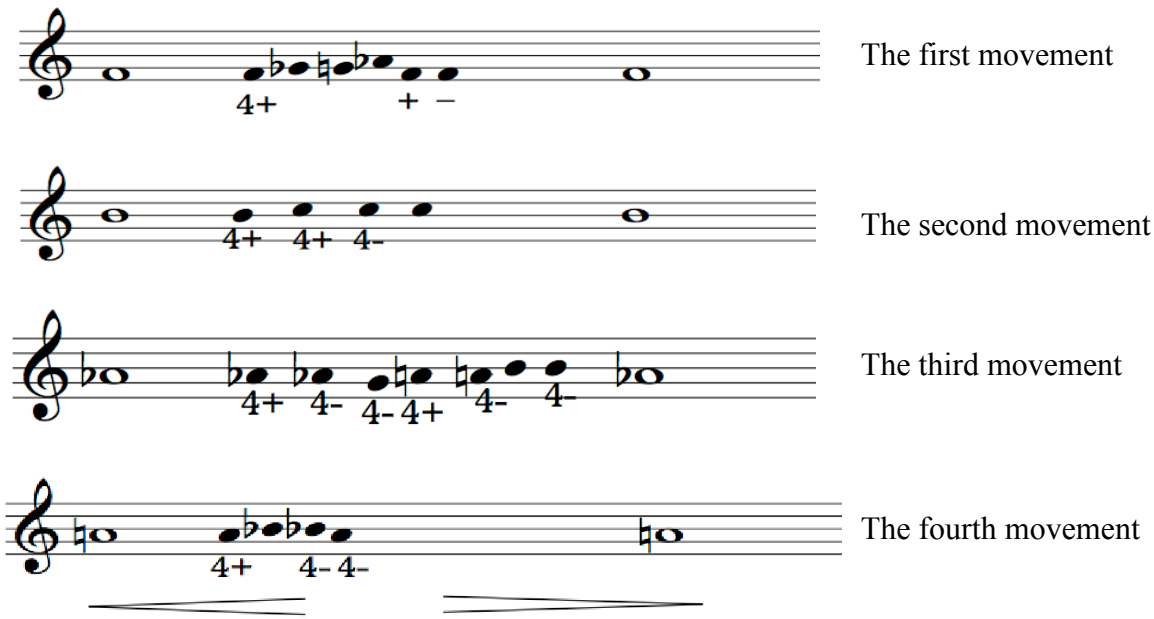
Figure 4.2 The musical example of both pages indicate the center tone A and the first quartertone ($A\frac{1}{2}\sharp$) at mm. 1- 4 in the fourth movement.





Scelsi transforms single tones in each movement through the application of microtones, glissandi, tremolo, and octave arrangements. The sound begins with a sustained center tone presented with relative purity. Then the pitch span begins to widen as surrounding microtones thicken the sound. Finally, the microtonal additions die away and the sound returns to its original state, and thus, the sounds have a symmetrical shape (see Figure 4.3). The dynamic contour also reflects the symmetrical pitch shapes. In each movement, the climax appears with the dynamic level reaching forte or fortissimo at a point that coincides with the golden section, and this climax will then give way to a quiet atmosphere that reflects the beginning of the movement.

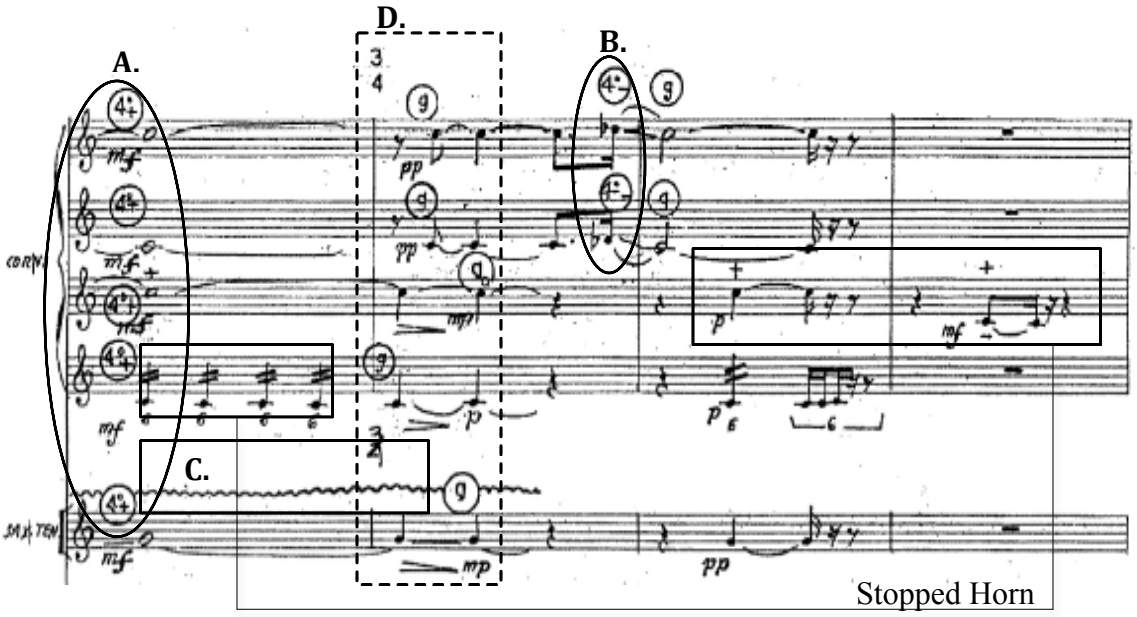
Figure 4.3 Sustained center pitches moving toward microtonal additions and then returning to the center pitch.



This orchestral work uses some specialized symbols to notate specific sounds. Scelsi uses symbols to present microtonal modifications to the notated pitches. For instance, the symbol “g”

(see Figure 4.4, D) represents the regular pitch; the symbol "4+" (Figure 4.4, A) represents one quartertone higher than the notated pitch; the symbol "4-" (Figure 4.4, B) represents one quartertone lower than the notated pitch; and the squiggly line (Figure 4.5, C) represents a pitch fluctuation part way between vibrato and a trill.

Figure 4.4 Sceli's microtonal symbols in *Quatro Pezzi*, first movement mm. 6-9, brass group.

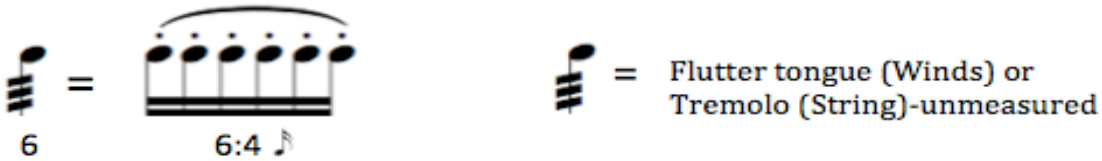


While the use of only single pitches could be monotonous, the way that Scelsi applies trills, tremolo, glissandi, and microtonal cluster effects creates variety and vitality in the sound. There are some instructions for changing timbre such as playing near the bridge or on the fingerboard in the string parts, and the use of flutter tonguing in the brass part. He uses the same

shape for both winds and strings (see Figure 4.5). He also asks for a stopped horn sound (+) in order to create a different timbral effect than normal.

The two notations of flutter tonguing indicate different performance techniques. In the first case, he notates a sextuplet with the ratio of 6:4, and in the second case, he leaves the flutter unmeasured (see Figure 4.5).

Figure 4.5 Two kinds of flutter tonguing



Natural beauty and simplicity are the central focus of the work, and this is reflected both in his use of the purity of single tones and in the use of the golden ratio as a structural device, which is found frequently in nature. The golden ratio is more than a mathematical ratio and has appeared frequently in creating and defining natural and human-made beauty throughout the centuries in both the East and the West. The *Quattro Pezzi* uses the golden section at specific points; however, it is important to note that Scelsi did not use the same sort of pre-compositional structures that one finds with Takemitsu, and thus one must conclude that the correspondence between the movement climaxes and the golden section are coincidental rather than deliberate. Even if Scelsi did not create these movements with the golden section in mind, the proportions are important to note, as they follow the broad dramatic contour of the movements as a whole.

The golden section in these orchestral pieces sometimes appears exactly where it would be expected, but in other cases, it is more approximate. Although the first, third, and fourth movements use mixed meter, it is nevertheless possible to calculate their total length using a

standard quarter note. This ratio of natural beauty occasionally coincides with the climax of the music. The golden ratio appears exactly in the second and fourth movements; however, in the first and third movements, the ratio appears in retrograde, and in the first movement, the ratio is only approximate (see Figure 4.6).

Figure 4.6 Indicated organizations with golden section in *Quattro Pezzi su una nota sola.*

Mvt.	Center tone	Total (♩)	G.Ratio	Climax/Measure	
First	F	138	42.642	112	28-31
Second	B	309	190.962	189	63
Third	Ab	249	153.882	95(R)	27
Fourth	A♮	257	158.826	158	38

(R)= Reverse Golden Ratio

The climax of the first movement comes later than would be anticipated by the golden section when calculated using a total length of one hundred and thirty-eight quarter notes; however, recalculating the golden section beginning at the mid-point of quarter-note sixty-nine does result not only in the possibility of a golden section, but this golden section also coincides with a climax. The movement as a whole is one of structural symmetry with each half section containing sixty-nine quarter notes. The algebraic sum 69♩ x 0.618 =42.642 shows the point where one would expect to find the golden section (see Figure 4.10 and 4.11). The music starts quietly with the single note in F. From the beginning, the bass clarinet, tenor saxophone, viola, and cello produce quartertones using vibrato. Each instrumental group generates subtle

oscillations around the starting pitch. The climax begins at m. 28, and uses increased volume and density with a shift in timbre. After this, every instrument in the orchestra except the percussion gradually constructs microtones while reaching a *fortissimo* climax at mm. 29 and 31. Each instrument appears at the climax making a collective glissando to increase the sound intensity. Instead of using a more Western style of narrow vibrato, Scelsi uses small glissandos (such as portamentos) that function more like the Eastern style of wide vibrato, all of which serves to further intensify the music. As previously noted, the pitch organization in this movement uses a center tone of F, which is combined with Gb, G, Ab; however, the appearance of these notes leads to an immediate return to the central tone, F (see Figure 4.7). It appears that Scelsi is considering these groups of microtones not as clusters of individual pitches, but as a single, large pitch with a frequency range that expands and contracts around a central pitch.

The second movement uses a time signature of 3/4, and its central tone is B. The sonic atmosphere unfolds very quietly and slowly, as in the first movement. The climax emerges around m. 63, and this reflects the golden section almost exactly, as follows: 309♩ x 0.618 = 190.962. The climax and golden section appear within one bar of each other in this movement (see Figure 4.12 and 4.13). The center note, B, combines with C and C#, and it seems to produce a vertical tone cluster, as if the music line of B had thickened to encompass notes as high as G (see Figure 4.8). The climax uses tremolos instead of glissandos for more dynamic expression. After the first sixty measures, this is the strongest dynamic level. The wind, brass, and strings all focus on a single note, B, with tremolo. This occurs from the late middle section to the last part in the second movement and is accompanied by a gradual decrease in dynamics.

Figure 4.7 Notes pivot around the axis (F) at mm. 6-9 in the first movement.

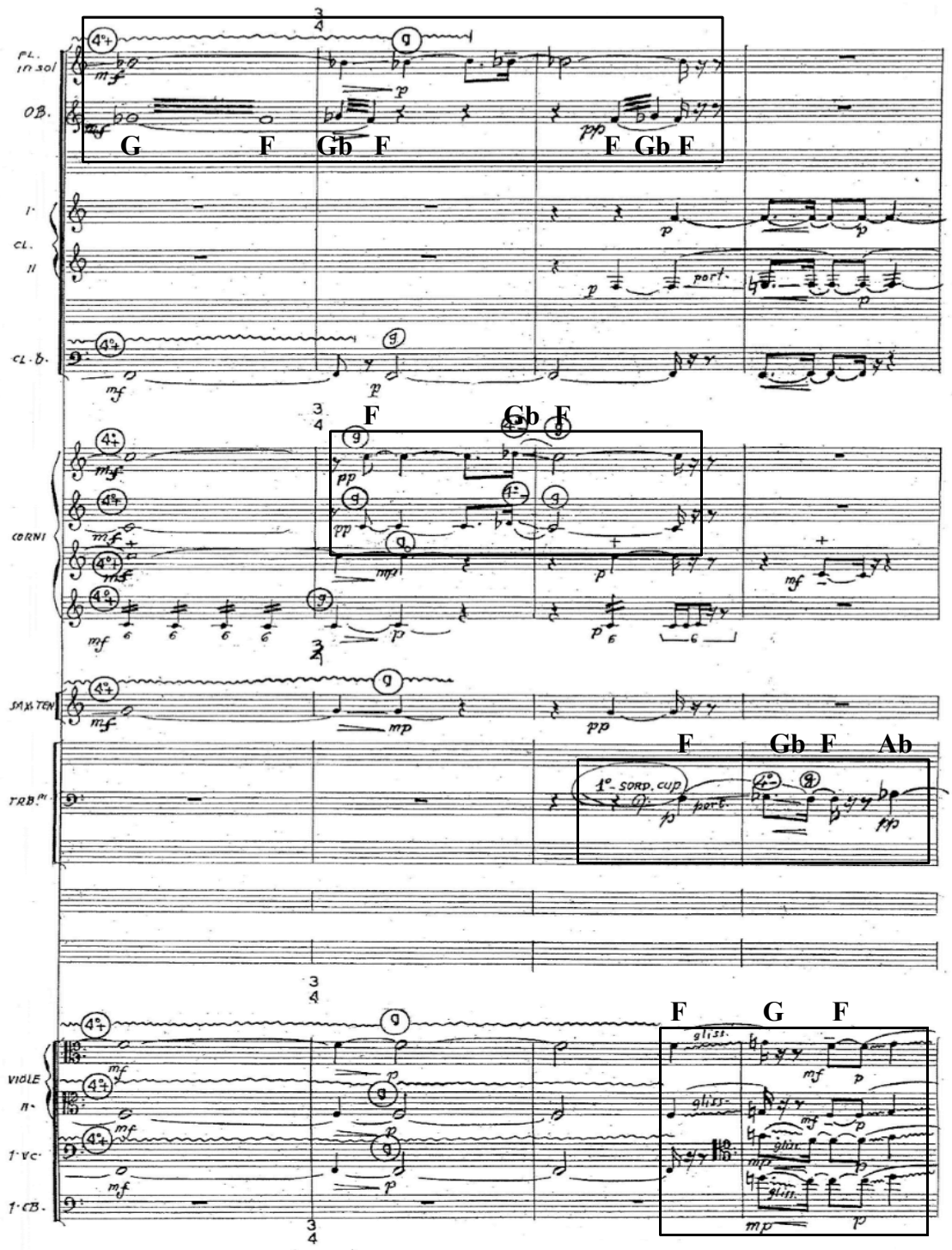
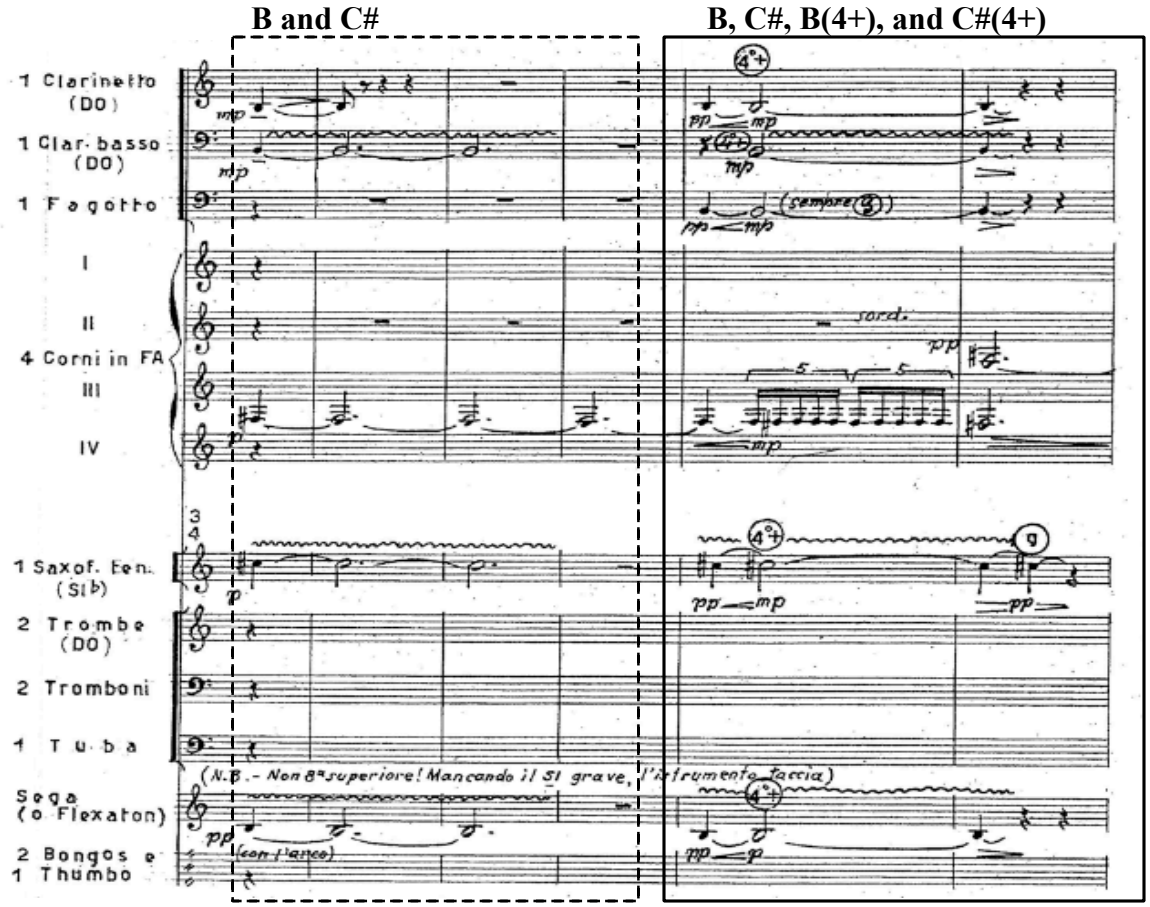


Figure 4.8 Tone cluster at mm. 1-6 in the second movement.

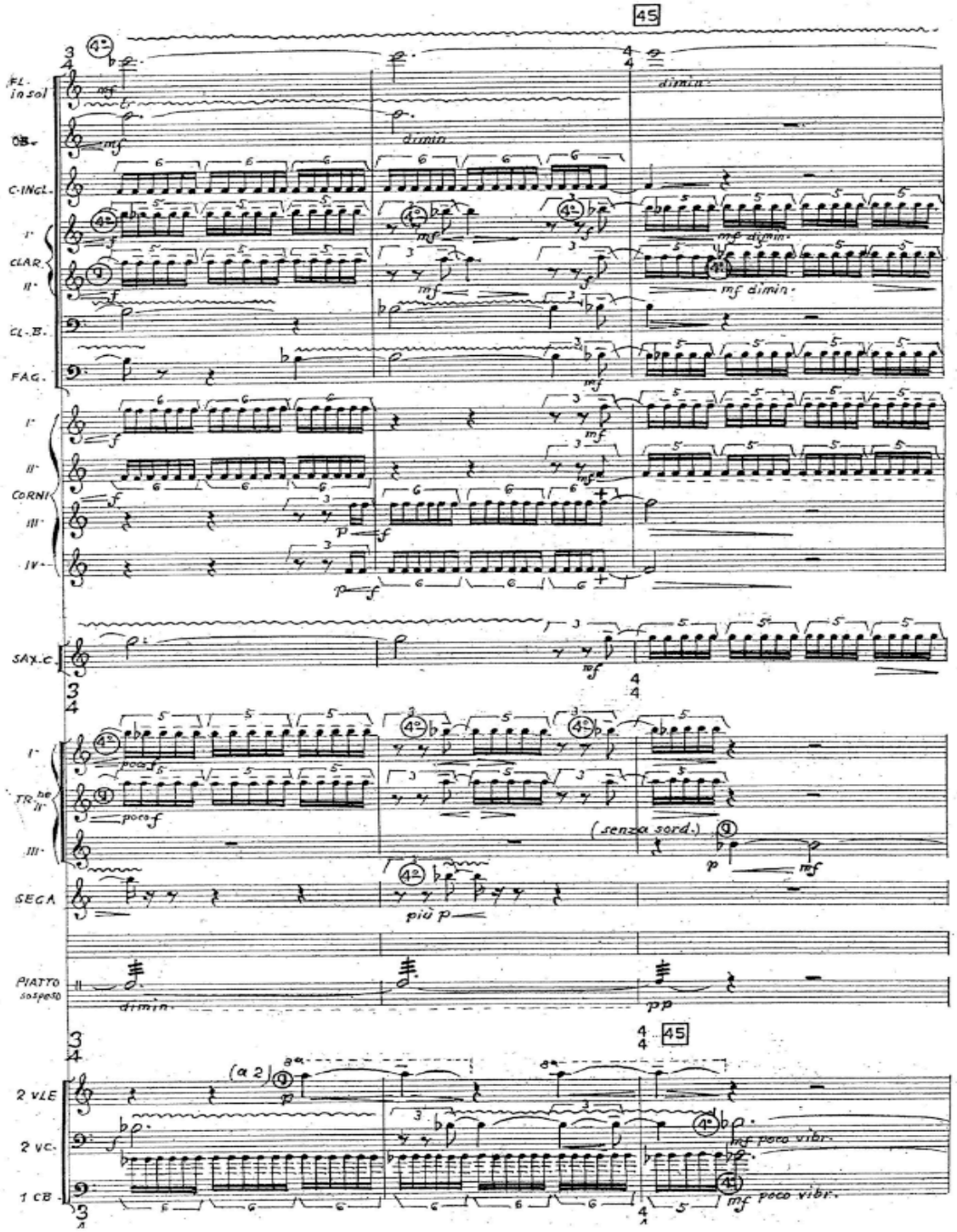


The climactic point in the third movement again coincides with the golden section, when the overall shape of the movement is considered; however, in this movement, the golden section appears in reverse, and thus, one must count backward from the end of the piece to find it. This movement has 249 quarter notes. According to algebraic sum, 249♩ x 0.618 =153.882, the point of the suspected golden section is from the right side to the left (see Figure 4.14 and 4.15). At the beginning, the first trombone plays an Ab extremely quietly, and the first horn enters with a Bb+ quartertone. The major second interval with a quartertone produces an ambiguous sound. The

timbre changes frequently through the presentation of each quartertone using both upward and downward motion, and through the use of normal intonation. This part is a distinct feature from previous sections. There are only brass instruments from mm. 1-40. The use of brass creates more tension through a change in timbre and through the use of quickly alternating microtones.

The fourth movement uses a large instrumental range—from contrabass to flutes—to create a huge block of sound. The percussion is particularly noteworthy in the way that it creates more musical energy and activity. All of the instruments use either tremolo (in the strings) or flutter tonguing (in the winds) to further animate the sound (see Figure 4.9). The climax in m. 38 is reached in this section and coincides with the golden section, which is calculated as follows: 257♩ x 0.618 =158.826 (see Figure 4.16 and 4.17). The combination of tremolo, glissandi, powerful vibrato, and microtonal clusters increases the tension and creates a massive sound block that serves as the climactic point of the movement.

Figure 4.9 Fourth movement: Sound progressions using flutter tonguing and percussion.



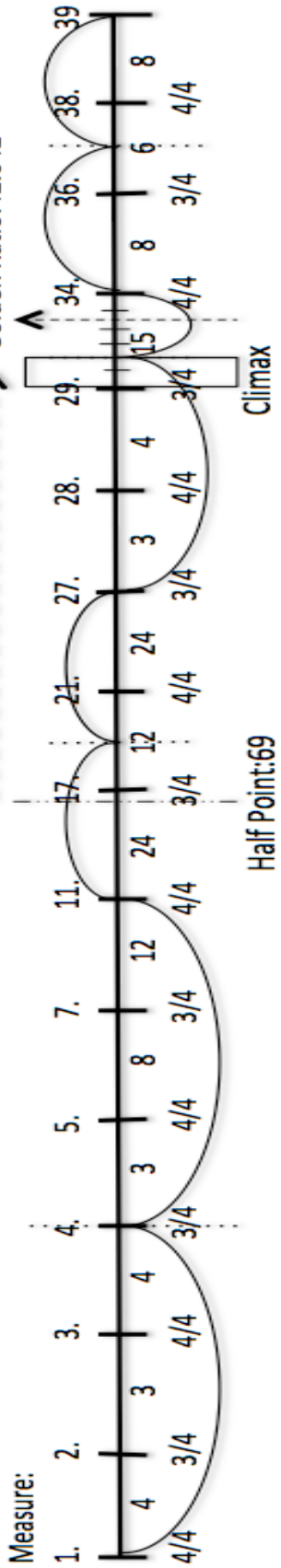
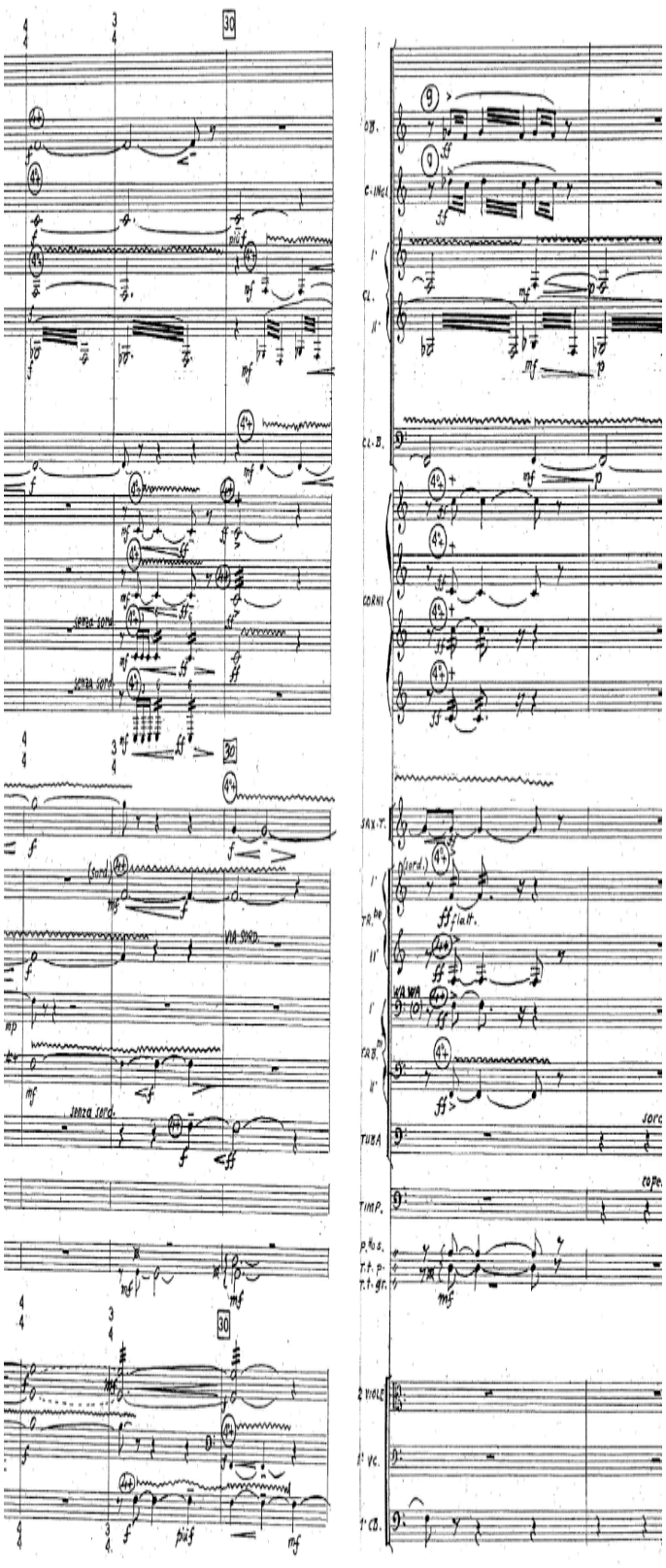


Figure 4.10 Golden Section in the first movement, showing symmetry formation.

Figure 4.11 A climax at mm.29-31 of 1st movement.



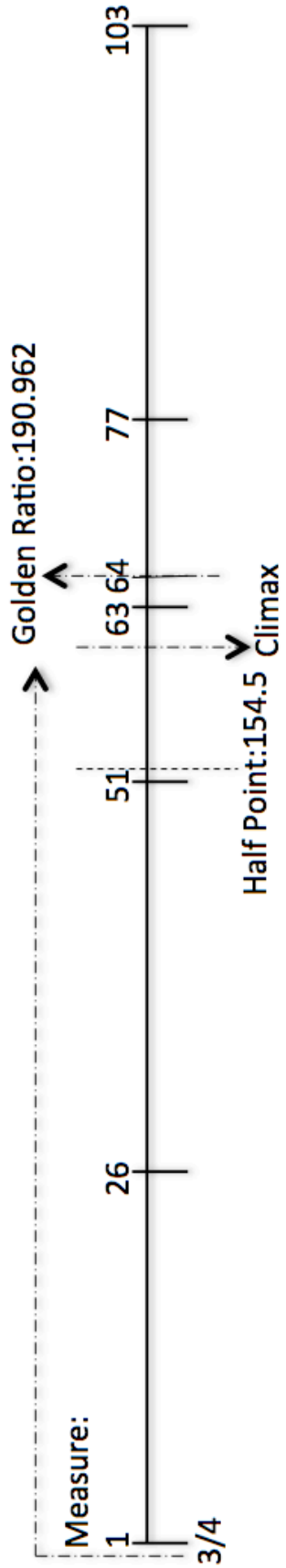


Figure 4.12 Golden Section in the second movement.

Figure 4.13 A climax at mm.60-63 at 2nd movement.

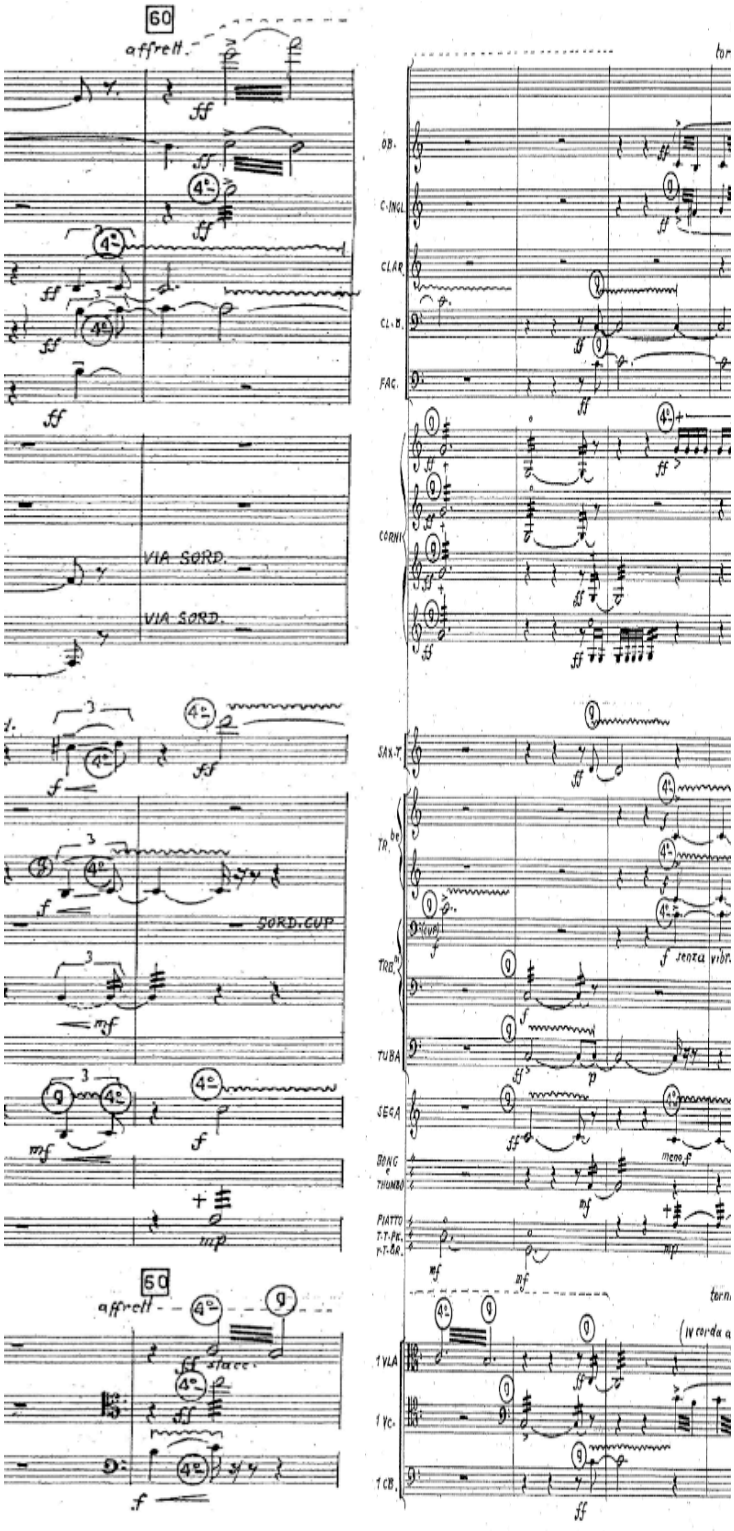


Figure 4.14 Golden Section in the third movement.

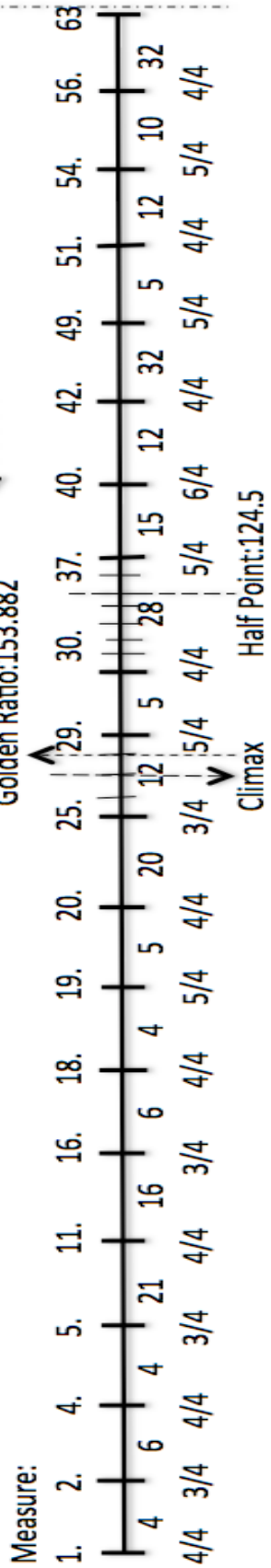
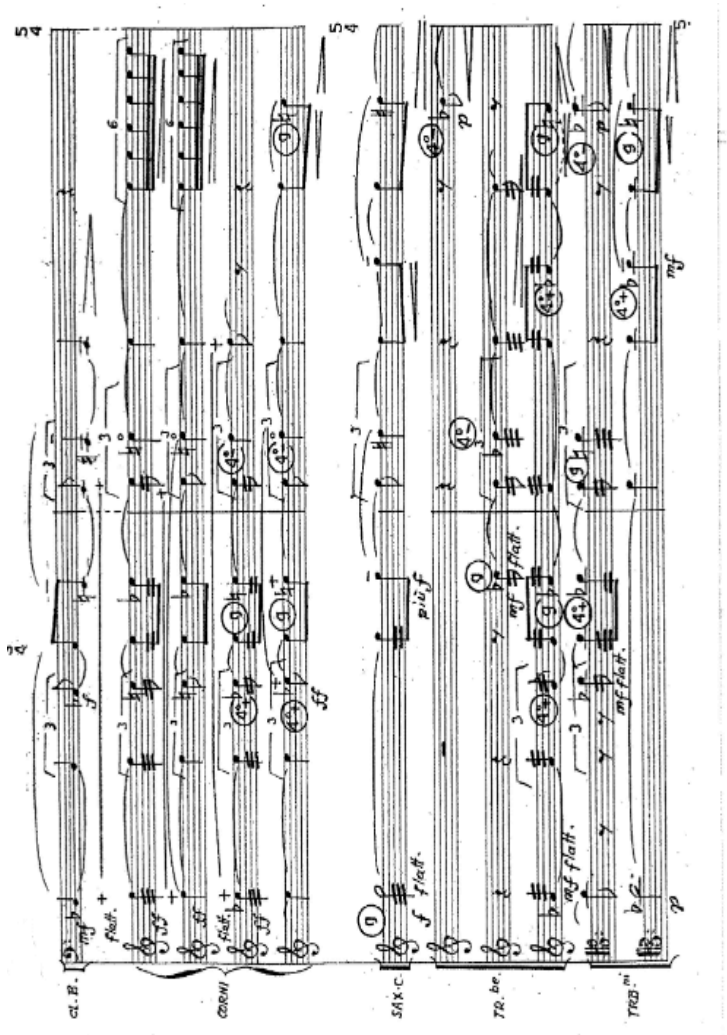


Figure 4. 15 A climax mm.27-28 at 3rd movement.



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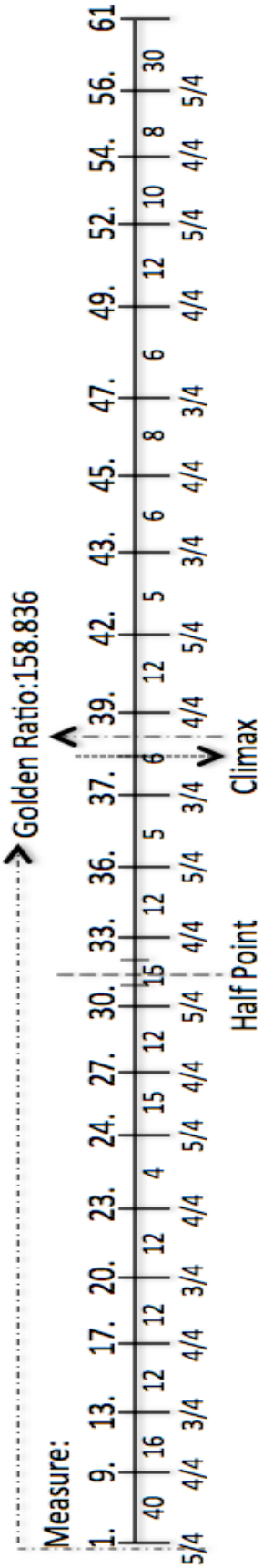
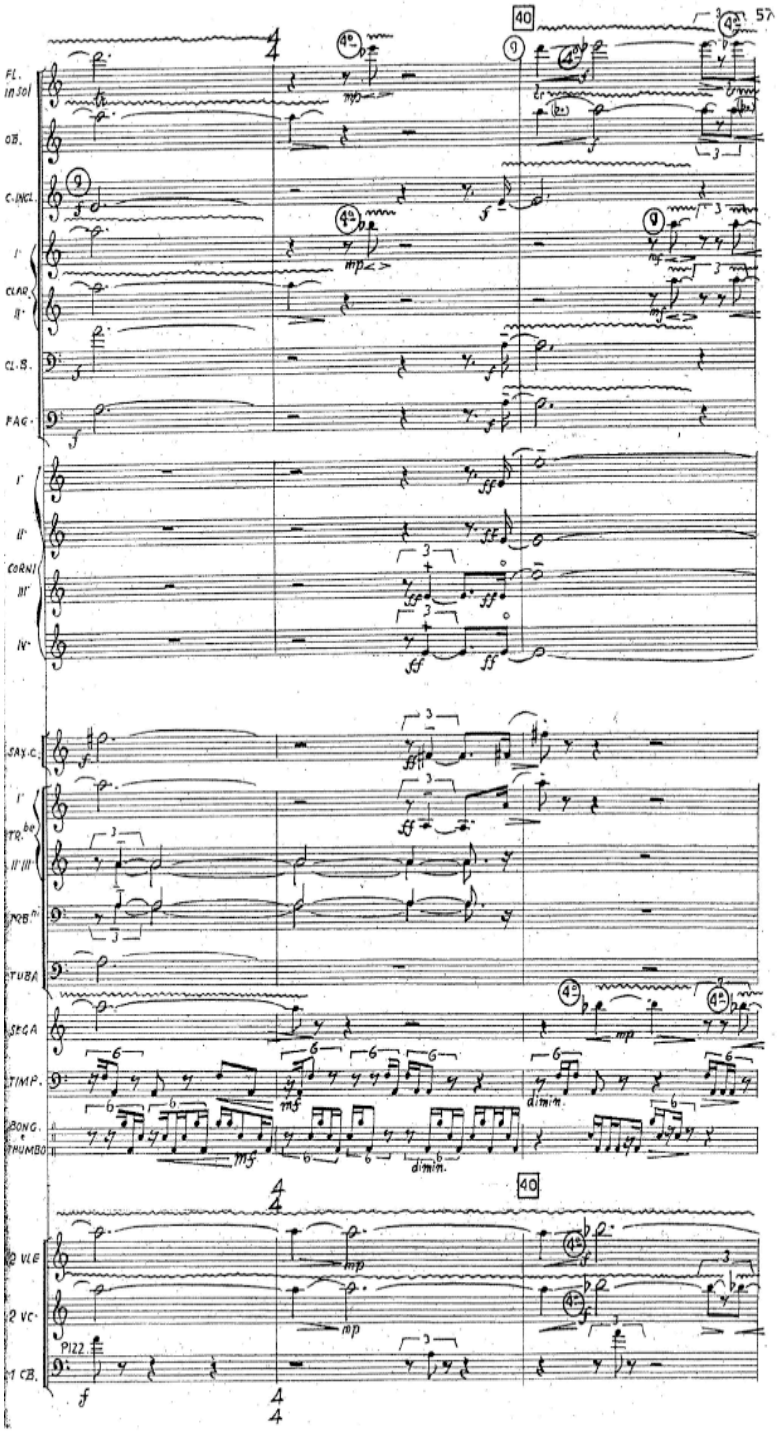


Figure 4.16 Golden Section in the fourth movement.

Figure 4.17 A climax mm.38-40 at 4th movement.



4.2 Eastern Influences in *Quattro Pezzi Su Una Nata Sola*

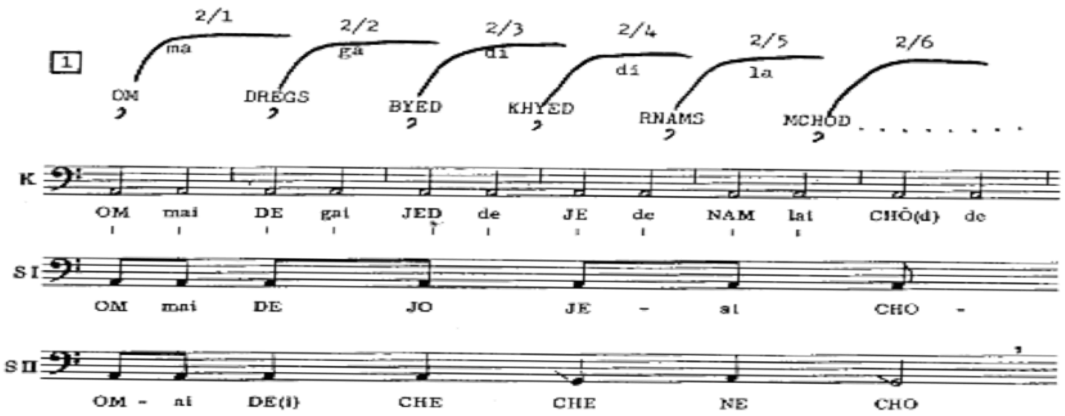
As mentioned in chapter two, Scelsi overcame a personal crisis by developing a new behavioral model through the practice of yoga and the study of Eastern philosophy. His new compositional approach is derived from these new tactics and includes a number of ideas borrowed from Eastern musical styles. This chapter will discuss the fact that although a compositional system based on the use of only one note should ostensibly be monotonous, the sonic possibilities are actually vast due to Scelsi's use of instrumental effects that expand the sound of single notes like microtones, vibrato, tremolo, and glissandi.

Eastern music for orchestra may combine sounds from different groups of instruments into a particular type of texture and timbre, as one finds with Indonesian gamelan music, which is heterophonic. Because Eastern music does not emphasize vertical musical concepts like harmony, the focus is on horizontal musical concepts

In Scelsi's *Quattro Pezzi su una nota sola*, the staggered rhythms in vertical space contribute to the heterophonic texture. The fact that this is an instrumental piece means that the varied sound colors created by instrumental groupings can provide an extra dimension to it. Essentially, the traditional character of Eastern music is characterized by all the melody instruments playing the same basic melody in a monophonic texture. Simple monophony is represented in the character of such Eastern musical styles as the Buddhist chant, *Yang-Yig*. Figure 4.18 illustrates the microtonal nature of *Yang-Yig* chant. The K line shows the recitation tone and the curves above represent a microtonal glide up to the recitation tone. The curve encompasses two notes, and although they are technically the same pitch, the upward glide indicates the presence of microtones. Of course, these are not specifically notated in the way that

Scelsi notates his microtones precisely, but they are a naturally occurring consequent of the *Yang-Yig* performance style.

Figure 4.18 Monophony and microtones in the Tibetan Buddhist chant style, *Yang-Yig*.[45]



Scelsi focuses on the fundamental meaning of the sound. The microtonal neighbors of the central tone create a feeling of space, and the long, sustained notes produce a continuous resonance that constructs the "inner space" of the sound. The orchestra maintains each single note to create a massive and rich sound. Ancient music from all around the world did not involve harmony or counterpoint and was, instead, monophony; however, after the Medieval period, Western music began to focus more on vertical sound relationships like harmony, while traditional Eastern music remained focused on horizontal sound progressions like monophony and timbral variation. Eastern music emphasizes the sound itself using overtones and microtones presented in monophonic textures or in single note systems.

[45] The numbers above the curves represent two things: the first number indicates the curve type, and the second number indicates the measure number. Water, Kaufmann. *Tibetan Buddhist Chant,* (Bloomington: Indiana University press, 1975), 193. See also, pp. 446-451.

The vibrato style of music in East Asia, as used with instruments such as the *yamatogoto* (大和琴) and *koto* (箏), differs from the Western style that is used for stringed instruments such as violins and cellos. The Eastern system uses tremolando notes that move both upward and downward. This creates a waving sound that results in a wider variation of pitch than one finds with Western vibrato technique (See chapter two, Figure 2.3). As shown in chapter two (figure 2.3), the vibration that results from the Western vibrato style is centered closely on a single note with a minor fluctuation in frequency range, while the vibration that results from the Eastern vibrato style is wider and encompasses a greater frequency range surrounding the central pitch. Less tremolando leads to smaller fluctuations in frequency, while more tremolando leads to wider changes in frequency.

Microtonal fluctuations result from the performance of intervals smaller than a semitone. In this work, Scelsi uses a wide vibrato style in the East Asian tradition, but this wide vibrato is performed on Western orchestral instruments. Each group of instruments produces a continuous sound, but they create different timbres.

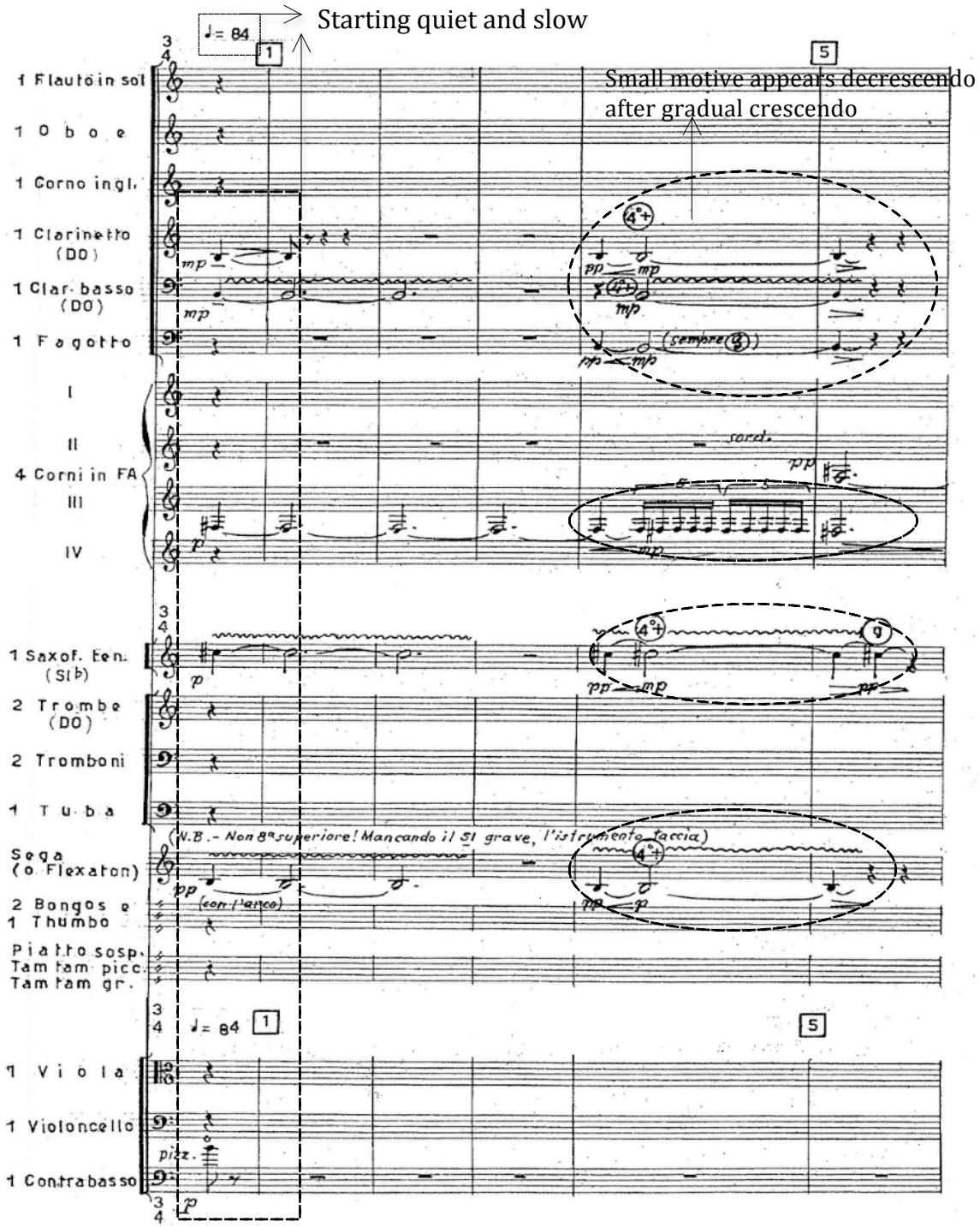
After the eighteenth century, microtones in Western music have primarily been used in string parts as a performance technique within the established twelve-semitone equal temperament system. Microtones were not frequently used, especially during the common practice era, but the subsequent breakdown of the Western tonal system created a new space from which microtones could reemerge.

The first movement begins with a single note, F, performed across the entire instrumental body of the orchestra. It progresses in an irregular fashion with respect to which instruments are present at any given moment, with various instruments appearing and disappearing. This all produces a distinctive sound color, and the microtonal oscillations serve

to thicken the sound around the central pitch. Each instrumental grouping maintains the central note while the individual instruments in the group appear and disappear with microtonal variations, and as a composite effect, the orchestra appears to play a single, thick musical line. Thus, we see one of the essential differences between Western polyphony and Eastern monophony: in Western polyphony, each part has its own melodic dimension on the horizontal axis, but the vertical dimensions of rhythm and harmony also govern each part.

Figure 4.19 displays a typical dynamic level as in Eastern music, which normally starts very quiet and slow, gradually becomes loud at a climactic point, and then decreases in volume. Specifically, this dynamic order is conventionally presented within each short motive or longer phrase.

Figure 4.19 Explanation of the dynamic interpretation at mm. 1-6 of the second movement.



Eastern philosophy was of central importance for the music that Scelsi composed after his mental breakdown, and this manifests in multiple ways. First, Scelsi was interested in the sound of the *Om* mantra, which symbolizes training inspired by Tibetan Buddhist monks and by Hinduism. He practiced Yoga to heal his mental and physical state. The sound *Om* has a direct impact on the human mind and helps to divert one's attention away from the five senses and from thought. Thus, it focuses the practitioner on the essence of natural sound. As noted earlier, Scelsi was interested in Eastern philosophy and visited India and Nepal. In an article on Scelsi, Alex Ross states, "The chanting of Tibetan monks generally consists of deviations around a central tone, with bells and brass creating an ambient halo."[46] As a practitioner of these Eastern meditation techniques, Scelsi developed a new compositional style derived directly from them, and this explains why much of his music has an Eastern sound. Much like the *Om* that focuses one's attention on the purity of a single sound, Scelsi's orchestral writing uses a single tone to create a similar effect. Rather than using the harmonic and melodic conventions of the Western style, his music is focused on the sound itself. The long, sustained notes that are the foundation of his music create a unique sound space that allows one to ponder the infinite by focusing so intently on one single thing.

The second important contribution of Eastern philosophy to Scelsi's music is the concept of the cycle, especially as symbolized by the circle, which Scelsi adopted as a symbol to represent himself in place of a conventional signature. Like the persistence of vision effect, the continual repetition of an oscillating sound will, over time, begin to blend into a constant state of sonic flux in the ear of the listener, and thus, Scelsi finds the absolute purity of a single tone to contain an essence of cyclicality—a cycle of birth, life, death, and rebirth that is central to

[46] Alex, Ross. "The Rest is Noise: Giacinto Scelsi." *The New Yorker* (Nov. 21,2005): http://www.therestisnoise.com/2005/11/giacinto_scelsi.html

Buddhism. Scelsi develops a cyclical feeling in the four movements through the use of a single note (sometimes appearing with microtonal neighbors, as previous described) within a thick musical texture created by the different musical instruments of the orchestra. This note undergoes a process of continual modification from beginning to end, and Scelsi uses a shifting array of timbres to hold the audience's attention for the duration of the work.

4.3 The Structure and General Characteristics of Takemitsu's *Green*

Takemitsu's *Green* (1967) is a work for conventional orchestra and was commissioned by the Japanese National Broadcasting System. Both *Green* (subtitled *November Steps II*) and *November Steps I* were composed in 1967. In *Green*, the influence of Debussy is evident in its emphasis on timbre. This is interesting because Debussy had himself been influenced by non-Western musical traditions, such as the gamelan music of Indonesia. Both Scelsi's *Quattro Pezzi su una nota sola* and Takemitsu's *Green* focus on timbre, but each approach it in a different way. Unlike Scelsi, Takemitsu designs musical materials such as modes and scales before beginning the composition. Takemitsu's musical sound world certainly involved Western-tempered scales; however, his music uses combines conventional tonality, harmonic progressions, and tonal centers or traditional modes.

These concepts are not necessarily things that Takemitsu thought about, but rather they are functions of our analytical methodology. He was more focused on the configuration of groups of instrumental timbre. For instance, each group of sound is layered or moves through parallel motion. The structures of his modes appear in a vertical harmonic fashion (although without using conventional tonal harmonies) rather than in a horizontal, melodic fashion. He

used microtones and tone clusters, but the method of sound production here is valid equally in terms of Western and Eastern thought.

Printed rehearsal numbers indicate the division into thirteen sections. The first section of the introduction is preceded by four introductory measures. Each section has a different character, and represents its varied spirit through sophisticated orchestration techniques. The orchestra seems to be performing a single movement, but thirteen sections emerge each with a slightly dissimilar character in the style of Japanese scroll paintings. *Green* is like a puzzle and the rehearsal numbers illustrate the form of the piece. The small sections of *Green* are like the panels in a Japanese scroll painting, and when they are put together, they reveal the entire picture. Thirteen movements are set out below in figure 4.20.

Figure 4.20 Instructions for playing *Green*.

Sections	Measures	Time signature	Tempo	Instrumentation
Intro.	1-4	(9/8)-(7/8)-(8/8)-(4/8)	♪=96-112	Sul ponticello, Non-vibrato
1	5-9	(5/16)-(7/16)-(5/16)-(2/8+5/16)-(4/8)		Sul-tasto, glissando
2	10-14	(5/8)-(2/8+9/16)-(7/8)-(6/16)	♪=72 ♪=60-72 ♪=48-60	Flutter-tongue, Sul tasto, Inserts mute, Senza sord, Con sord, Bouché
3	15-19	(5/16)-(7/16)-(4/8)-(3/8)		Senza sord, Sul ponticello, Metal mute, Con sord, Non vibrato
4	20-24	(4/8)-(5/8)-(9/16)	♪=90-112	Senza sord, Non vibrato, Flutter-tongue, Sul-tasto. Bouché
5	25-29	(4/8)-(3/8)	♪=60-72 ♪=48-60	Flutter-tongue
6	30-34	(5/16)-(7/16)-(2/8)-(7/16)-(3/8)		General pause

7	35-38	(7/16)-(3/16)-(5/8)-(4/8)-(5/8)	♪=38-45	Senza sord, General pause, Col legno tratto, Non vibrato
8	39-43	(5/8)-(4/8)-(5/8)-(7/8)	♪=60	Sul ponticello, molto, Non vibrato, Sul ponticello, Col legno tratto, Con sord
9	44-48	(4/8)-(9/16)-(7/16)-(4/8)	♪=60 ♪=48	Sul-tasto, Glissando, General pause, Non vibrato
10	49-53	(4/8)-(6/8)-(5/8)-(2/8)-(7/16)		Con sord, Non vibrato, Sul ponticello, Glissando
11	54-58	(4/8)-(7/16)-(5/8)-(10/16)-(7/16)	♪=72-96 ♪=72	Con sord, Metal mute, Sul ponticello, Sul tasto
12	59-6	(5/16)-(5/8)-(3/8)-(6/8)	Very Slow ♪=38-45	
13	64-65	(6/8)		

Debussy used whole tone scales in some of his music, and the interval of a fifth and the relationship between D and B are important in his *Prélude à l'après-midi d'un faune*. Similarly, a principal conception in *Green* gives a central role to the pitches F# and B while using major pentatonic and octatonic scales and polychord progressions. Thus, while *Green* is a Modernist work and is technically atonal, a sense of tonality is nevertheless present due to the way Takemitsu uses these scales and harmonies. The orchestra presents an obvious melodic structure, a strong sense of tonality, a combination of distinctive timbres, and features small musical gestures that appear in imitation across various instrumental groupings.

The main melodies appear in a major pentatonic scale in the flute and an F# melodic minor scale in the viola, both of which are important themes and appear several times throughout whole work (see Figure 4.21 and 4.22).

Figure 4.21 A main melody in flute in mm. 1-2 of the introduction.

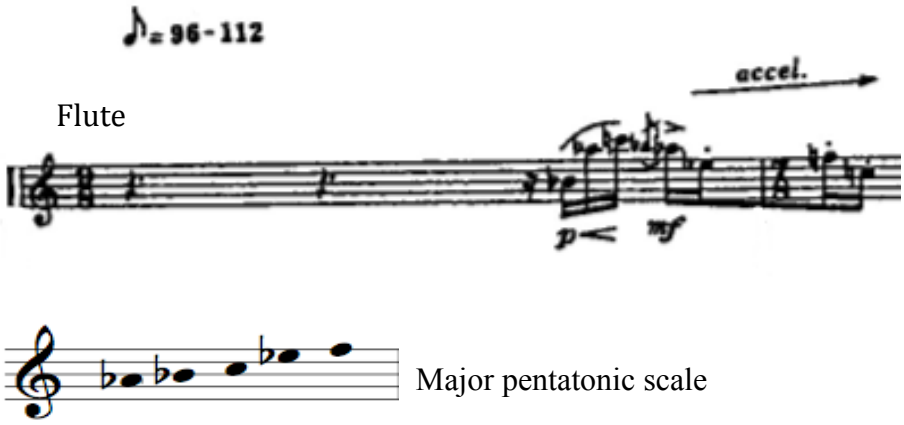
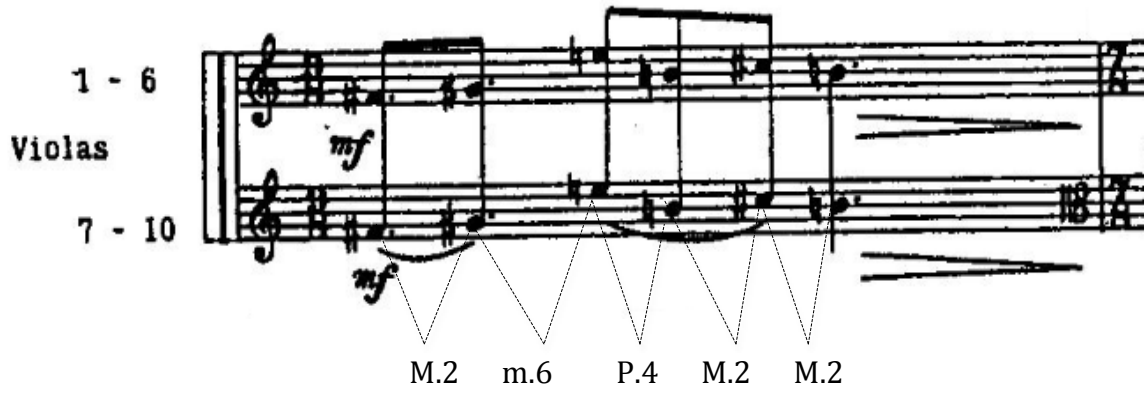
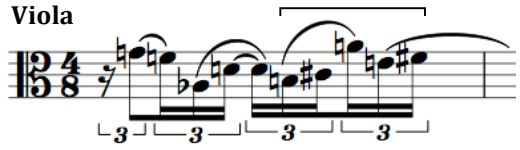


Figure 4.22 Principal pitch organization in mm. 1-2 of the introduction in the viola.

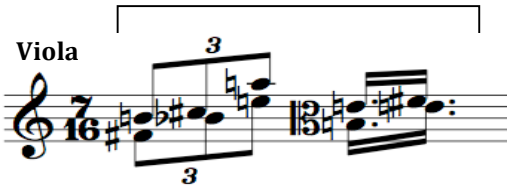


The pitch organization of M.2, m.6, P.4, M.2 and M.2 from viola of figure 4.27 appears in m. 2-3 of section no. 2 in the alto flute, F horns, harp, celesta, and cello, as well as in m. 1 of section no. 5 in the viola part, m. 2 in section no. 6 in the viola and cello, and mm. 1-2 of section no. 9 in the viola and cello (see Figure. 4.23).

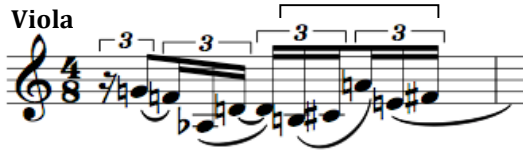
Figure 4.23. A pitch organization (M.2, m.6, P.4, M.2 and M2) in section nos. 2, 5, 6, and 9.



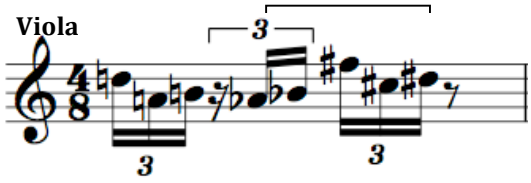
m. 1 of section no. 5



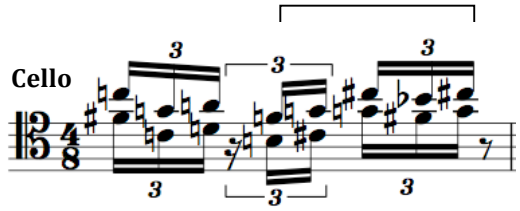
m. 2 of section no. 6



m. 1 of section no. 9



m. 2 of section no. 9



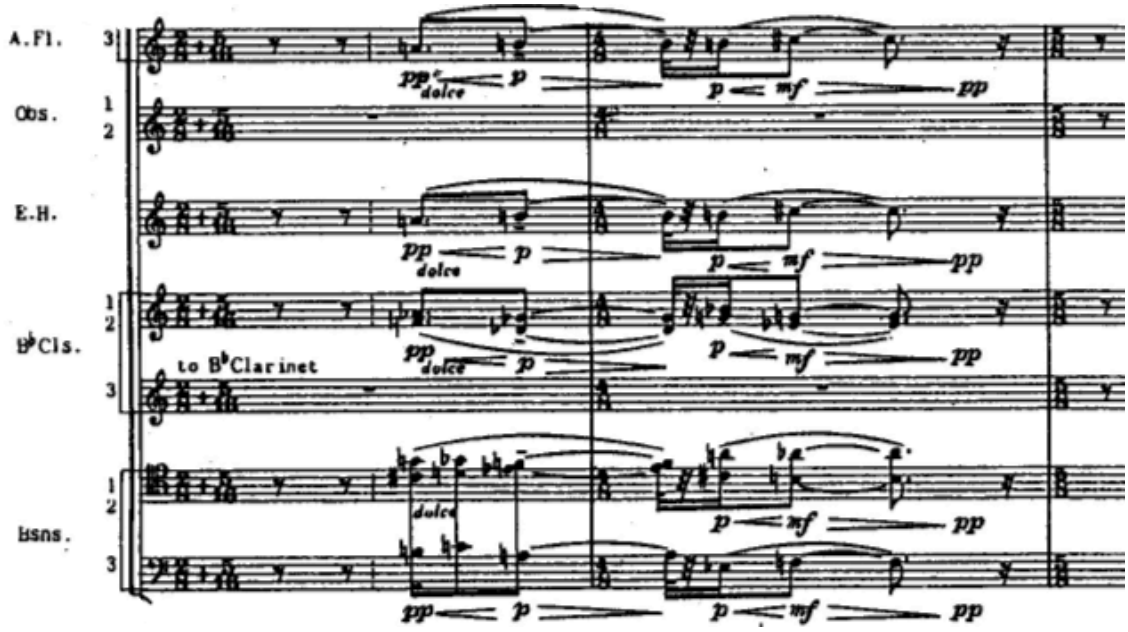
m. 2 of section no. 9

There are some fragmentary pitch associations in figure 4.25, which appear as main pitches in various parts, such as major seconds and minor sixths. For instance, the pitch factors indicated a major seconds and minor sixth in mm. 4-5 of section no. 1 in the woodwinds, m. 1 of

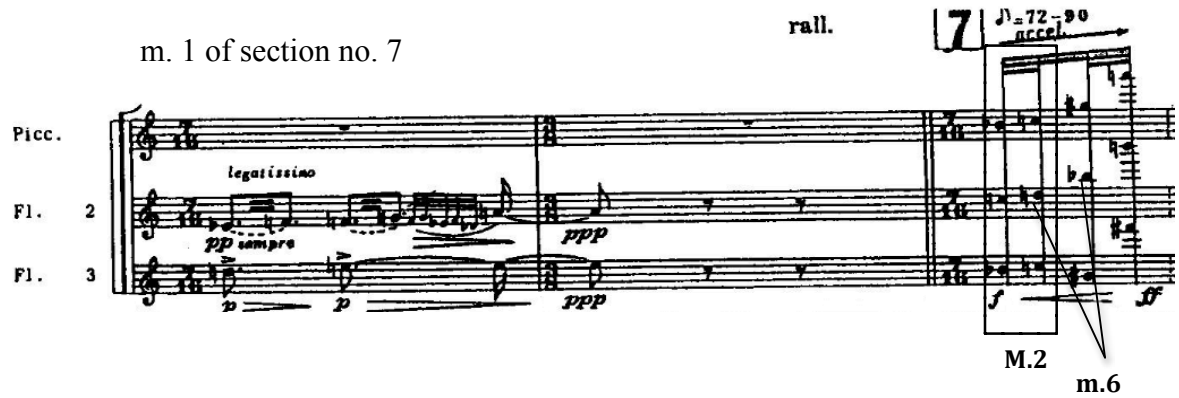
section no. 7 in the piccolo and flute, and m. 3 of section no. 9 in the piccolo and xylo-marimba (see Figure 4.24).

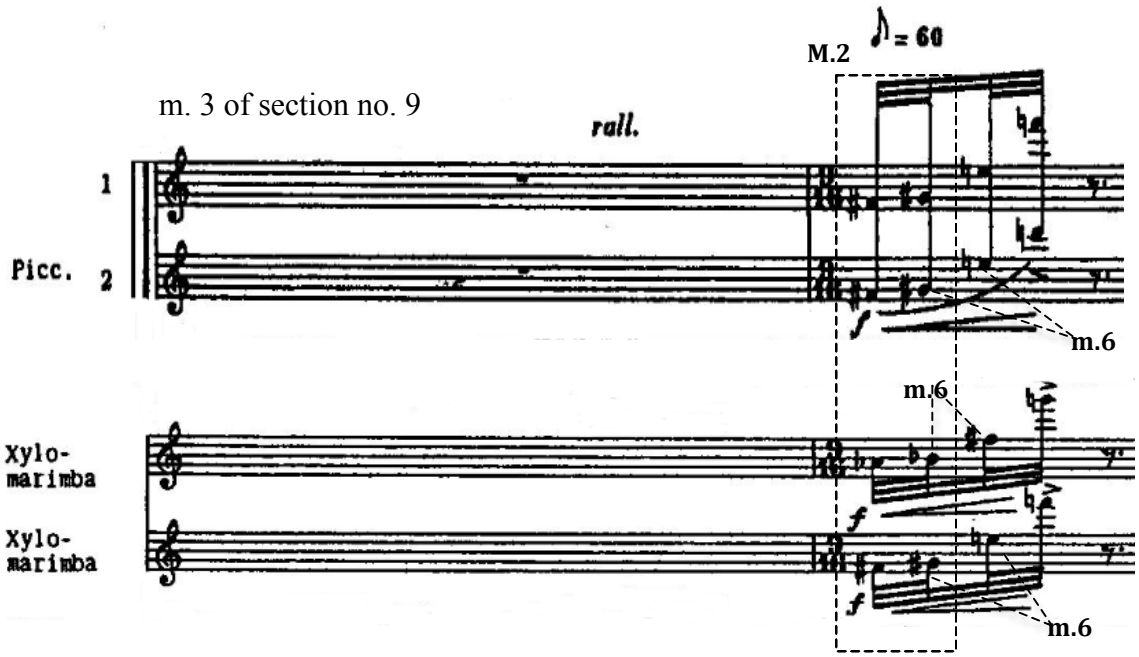
Figure 4.24 Pitch organization of major seconds and minor sixths from section nos. 1, 7, and 9.

mm. 4-5 of section no. 1 (major second)



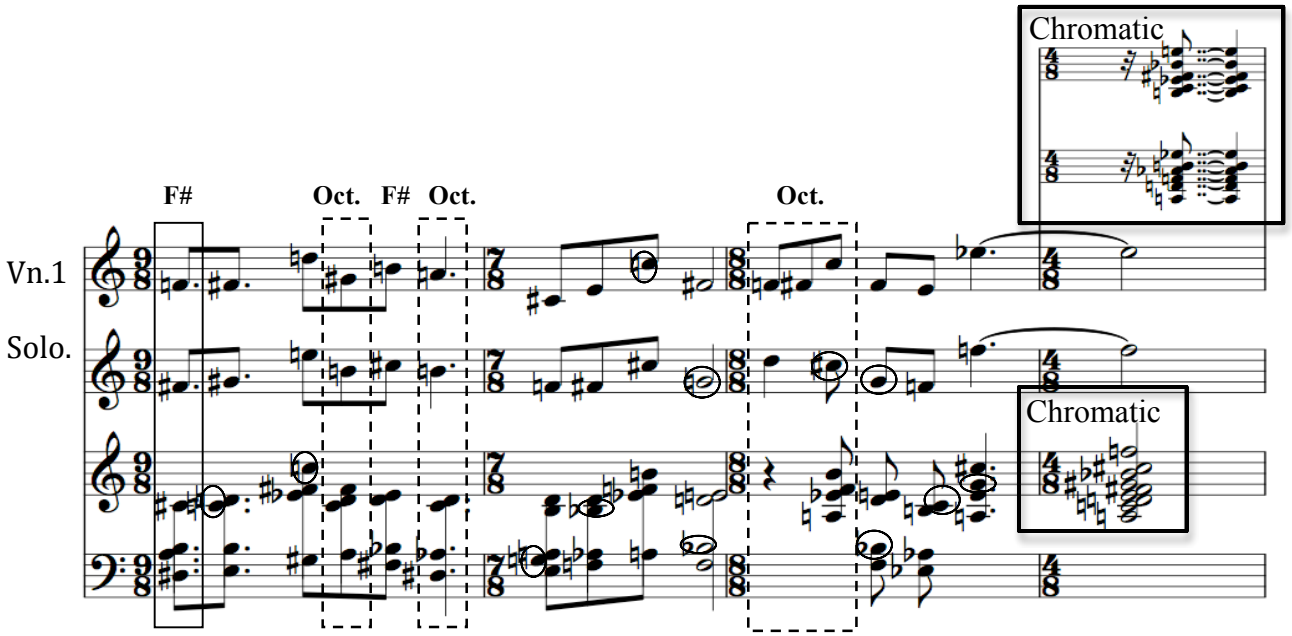
m. 1 of section no. 7





Green uses multiple combinations of horizontal melodies and vertical harmonies, and this is a characteristic of Western music. The pitch structures of the chordal sound blocks used are octatonic, pentatonic, and chromatic, as well as some pitches foreign to the scales used in particular sound blocks (see Figure 4.25). Essentially, the sound blocks present a sense of harmonic movement, even though these are non-functional harmonies from a common practice perspective. Takemitsu, however, prearranged his own scales and harmonies in his own way, and any sense that the listener has of harmonic movement is coincidental.

Figure 4. 25 The majority of the harmonies in *Green* consist of various types of atonality and they combine some kinds of chordal associations at the introduction in mm. 1-4.



The above section introduces densely packed chords in vertical formations throughout the work that indicate scales. The vertical formations labeled F# in figure 4.25 contain pitches from the F# melodic minor scale, which creates a connection with previous material, as seen in figure 4.22. Each dotted line box shows octatonic scales. These octatonic scales begin on C#, D, and C, but they can be considered as transpositions of the same octatonic scale, in the sense of Messiaen's modes of limited transposition. An example of an octatonic scale built on C can be found in the woodwind and brass part of m 17.

Notes that are not part of the F# melodic minor scale are sometimes present even though they are foreign to the scale itself (e.g., the encircled pitches in Figure 4.25). As previously mentioned, F# and B are both important in this work. The introductory section in the solo violin in the first phrase starts moving from F# to B. Furthermore, the mm. 1-2 of section no. 1 also presents these pitches using doubling at the first violin, flute and bass. These pitches frequently

appear to relate the theme to the melody. See for instance their appearance in section no. 11 in the viola, section nos. 12 to 13 in the string part, and the sustained B in the contra bass, which finally reach the note F# in the violin.

Takemitsu's approach to harmony involves dense clusters of notes, and it is not easy to understand how he created his harmonic progressions from a common practice perspective; however, Takemitsu is not really following the Western sense of common practice harmony and melody exactly. Rather, he is more interested in focusing on specific sound colors. Furthermore, his use of mixed meter and shifting rhythmic values are more complicated than the more conventional uses of rhythm found in much of Western music, the work of Modernists like Stockhausen and Xenakis notwithstanding.

The polychords can help us understand Takemitsu's chord progressions, as the top and bottom of each vertical sonority uses different harmonic sources. For instance, in the first violin in m. 1 of section no. 7, a group plays a series of major third chords while the other group plays a series of minor third chords, all in parallel motion. Measures 3-4 of section no. 9 in the strings are composed of five-note chords against three-note chords that descend in parallel motion (see Figure. 4.26). Takemitsu arranges more pitches vertically, and in some cases he uses all twelve-tones for configuring harmonies, which seem to be cluster chords. The organizations of these tone clusters are spread across numerous octaves with doubling in different instrumental groups, which relaxes the feeling of dissonance and emphasizes the effect of the timbre (see Figure. 4.28). Figure 4. 27 shows, using a condensed score, how the pitch structures are constructed and arranged into a sequence that uses a wide variety of tone colors within a wide spatial register, with chromaticism employed to create a more spacious sonority within a prevailing diatonic spread.

Figure. 4.26 An example of the parallel motion of polychords in m. 1 of section no. 7 and m. 3 of section no. 9.

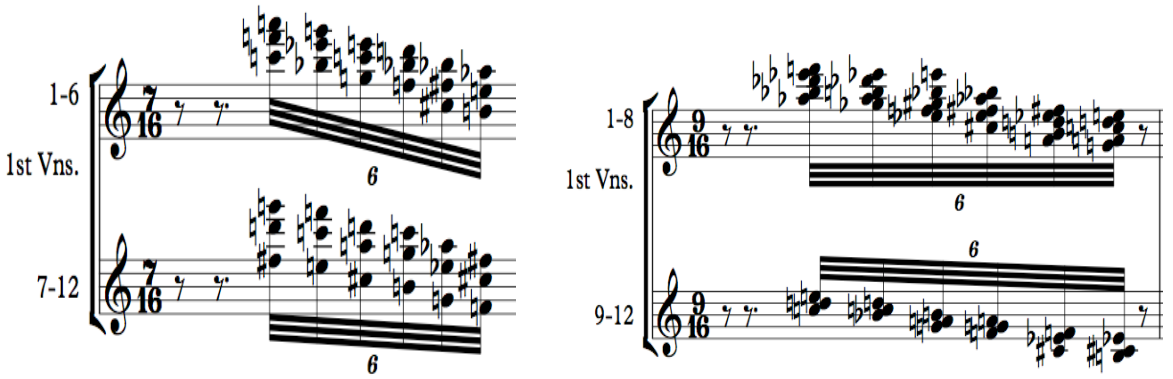


Figure. 4. 27 *Green* chordal sound block in mm. 5-9 of section no. 1.

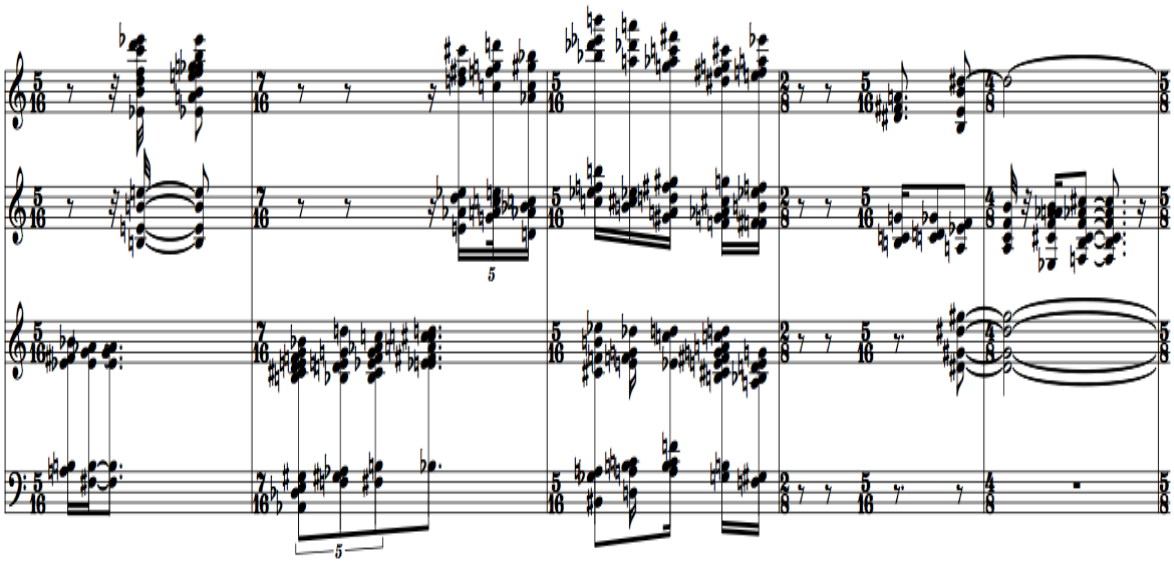
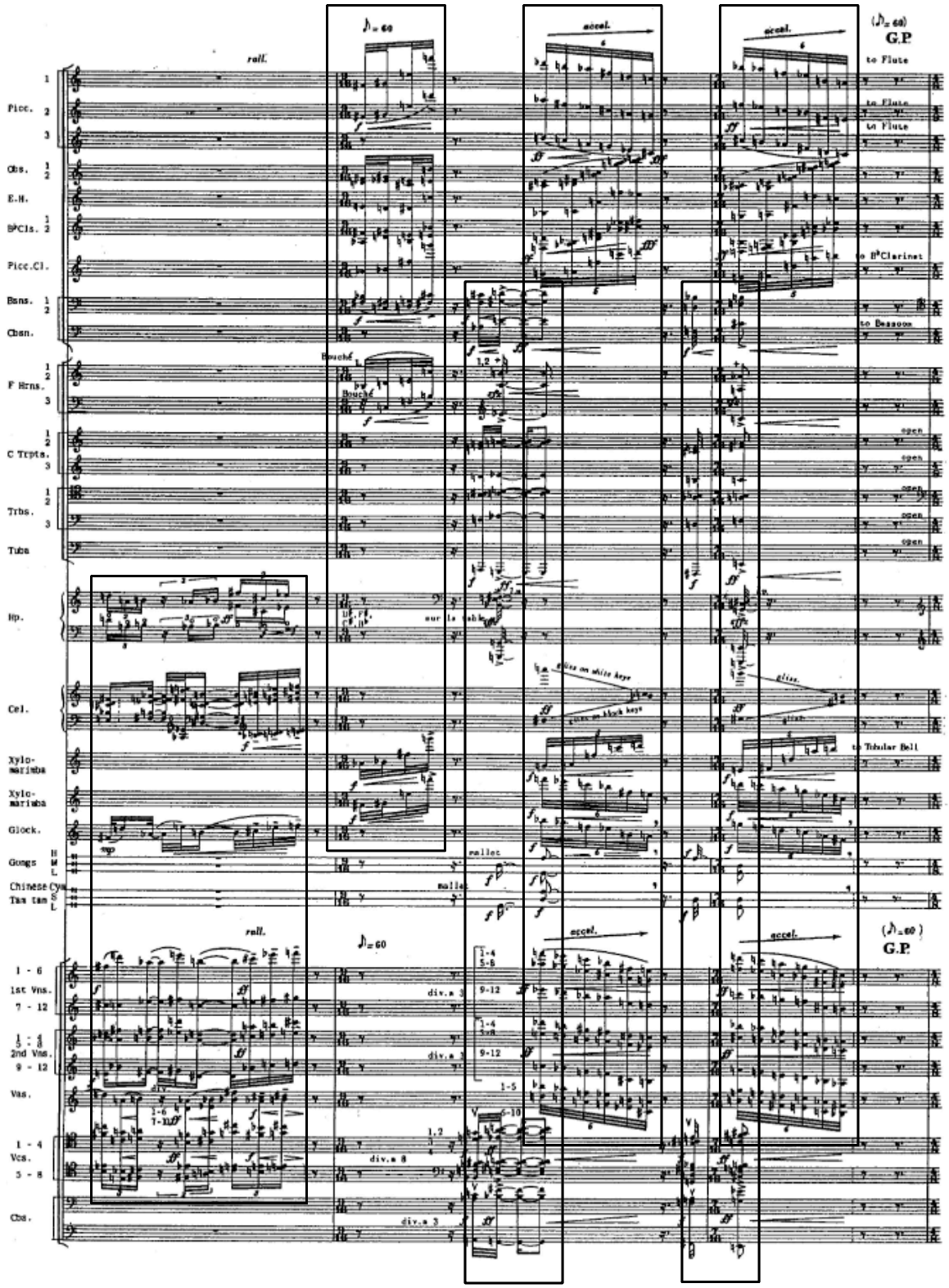


Figure 4.28 Appearance of sound blocks in groupings in mm. 2-4 of section no. 9.

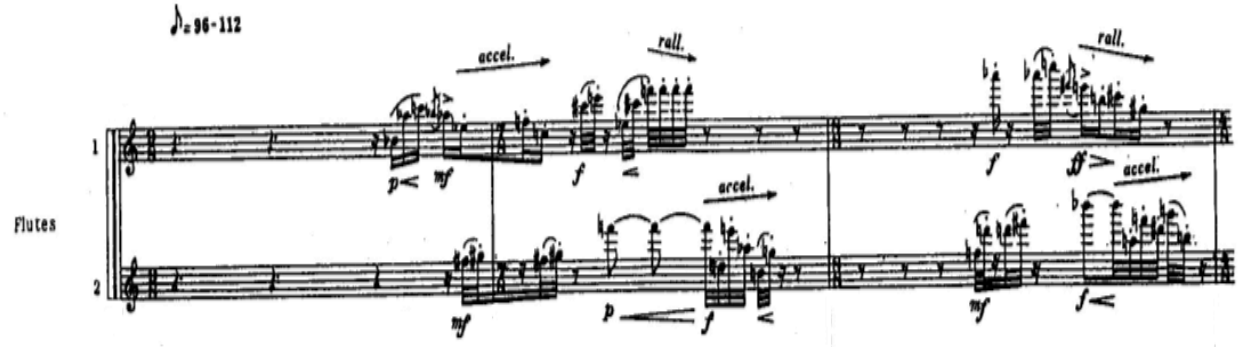


Takemitsu applies specific articulations such as *sul pontiello*, *sul tasto*, and *senza sord* to create a variety of instrumental effects. The strings and brass parts frequently use muted sounds. Furthermore, instructions regarding bowing over the fingerboard or near the bridge are given in order to create different timbres. Various doublings between each group of instruments are used to create different sound configurations of varying intensity. In the horn part of section nos. 2 and 4, mutes are used to create yet another type of timbre. Every string part is divisi.

Analysis of the thirteen sections in *Green* for orchestra

Introduction (mm. 1-4): In the harp, a microtonal effect is created by using the enharmonic spelling of F and E# simultaneously in m. 1. Because there is a difference of 41 cents between F and E#, the tuning then becomes microtonal. This is possible to achieve on non-tempered instruments like the harp. The two flutes enter with a short, high register, rhythmically active figure reminiscent of Messiaen's transcriptions of birdsongs (Figure 4. 29).[47]

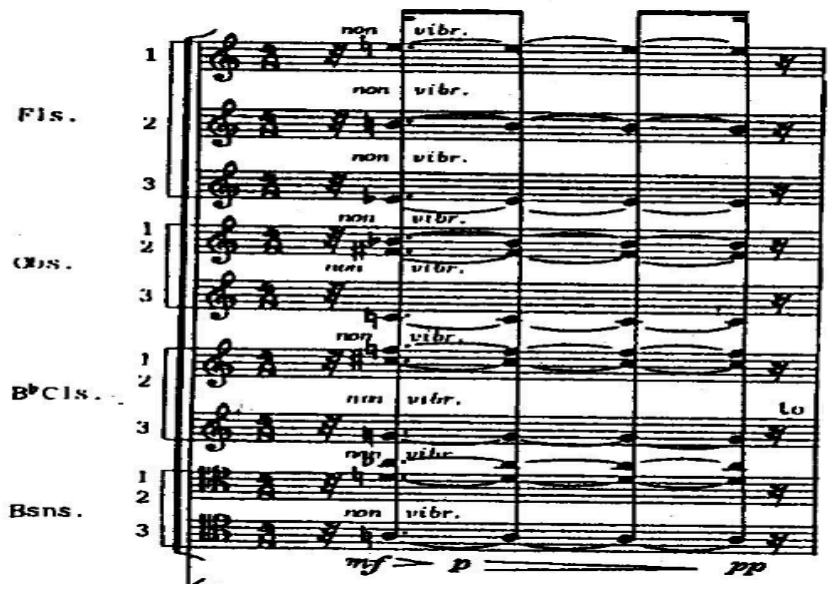
Figure 4. 29 An example of birdsongs in the two flutes in mm.1-13 of the first movement.



[47] Oliver Messiaen (1908-1992) loved bird sounds, and he applied them in his instrumental music. The bird songs usually appear in a high register using regular rhythms with grace or short notes and trills, all characteristic of bird sounds.

Although Takemitsu has not explicitly cited Messiaen's predilection for birdsong as an influence, the sonic effect is very similar, and considering the nature theme of *Green*, it is thematically appropriate. The melodic theme appears in unison in the viola and solo cello. In conventional orchestration, the cello and the viola should occupy a lower register than the violin, but here, Takemitsu actually scores them in a higher range than the violin. The use of low register instruments to play the main theme creates an imposing character with a heavy timbre. Another example is in m. 4 in the woodwinds. The first clarinet is arranged higher than the oboe and flute (second and third), and the first bassoon is higher than the third clarinet (see Figure 4.30).

Figure 4. 30 The clarinets are scored higher than the flutes and oboes at m. 4.



Section no. 1 (mm. 5-9): This section introduces the brass and percussion group. Sound is produced through doubling and groupings of sound blocks, as shown in figure 4.28. The use of

antique cymbals (crotales) and two flutes produce harmonics of an octave, and the use of a bell played with a metal beater and the metallic sound of the celesta creates a peculiar sonic effect.

Section no. 2 (mm. 10-14): Sustained doubling motion features octaves and harmonics played using the perfect fourth of G# and D#. The secondary melody in doubled octaves combines chromatic and pentatonic scales in the first violin and flute. The sonority gives a strong impression of pentatonicism (D#, E, F, F#, G#) in mm. 11-12. The other sound in the woodwinds and strings is made softly using flutter tonguing and tremolo *senza sord* (without mute) in mm. 11-12. Furthermore, the birdsong reappears in the flutes in m. 12 and in the brass part with metal mute with a *sforzando* contrast.

Section no. 3 (mm. 15-19): The clarinet starts with flutter tonguing at a *fortei* dynamic. In m. 16, sounds appear at irregular intervals through every instrument. The tam tam and gongs in the percussion part provide further instrumental color.

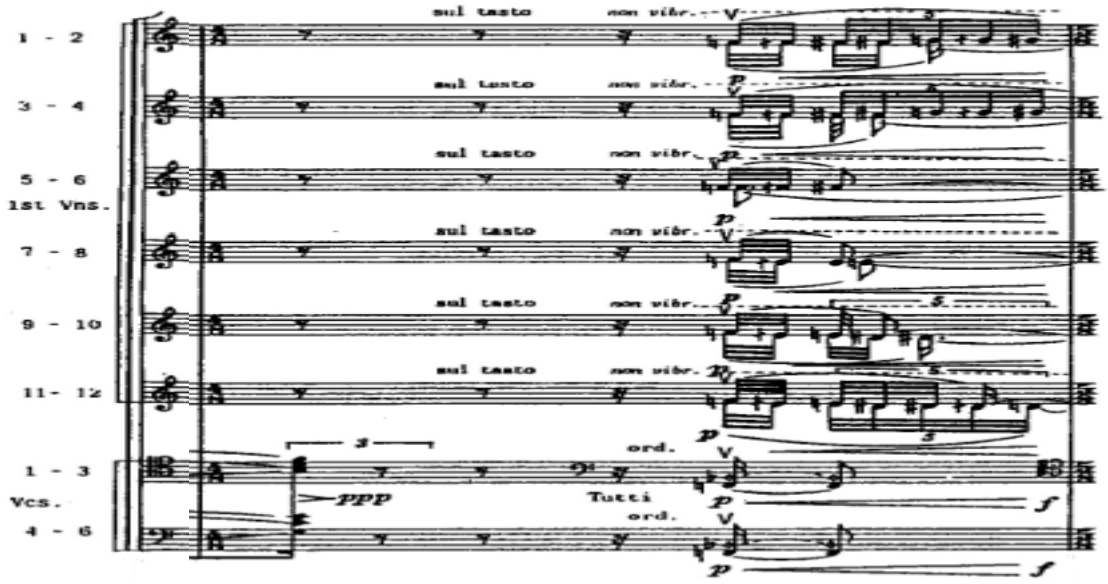
Section no. 4 (mm. 20-24): Rhythmic sound blocks provide extreme variations between dynamic levels. The instrumental group forms a block sound that produces powerful timbres. In m. 22, Takemitsu uses fermatas and begins eliminating various instruments so that the sound gradually fades away before reaching a moment of complete silence with the effect of a general pause.

Section no. 5 (mm. 25-29): The string part is divided into two blocks between the violins and the low register instruments. These blocks appear heterophonically. The sound is quite gentle and soft. The piccolo and first violin (1-4) doubles the melodic theme by transposing a perfect fourth in mm. 27-28. Furthermore, in the same measures, two flutes recall the birdsong first heard in the beginning.

Section no. 6 (mm. 30-34): Oboes, bassoons, flutes, clarinets, celesta, and glockenspiel double each other before the appearance of the first general pause.

Section no. 7 (mm. 35-38): There is a second general pause (G.P). All the instruments play a *ff* gesture that stops abruptly with a G.P., and the remnants of the sonic energy continues to hang in the air during the notated silence (mm. 35-6). The presence of very resonant metallic instruments such as the antique cymbals and glockenspiel glissando create a lingering, shimmering effect. In m. 38, the woodwind parts are orchestrated in such a way that as the individual instruments are quickly reduced in a dramatic sextuplet figure, a unique timbral effect is created while reducing the overall sound level (see Figure 4.32). In the same measure, the twelve first violin players are divided into six different groups, which perform various microtones clustered around the central pitch of F, thereby making an extended sound cluster (see Figure 4.31).

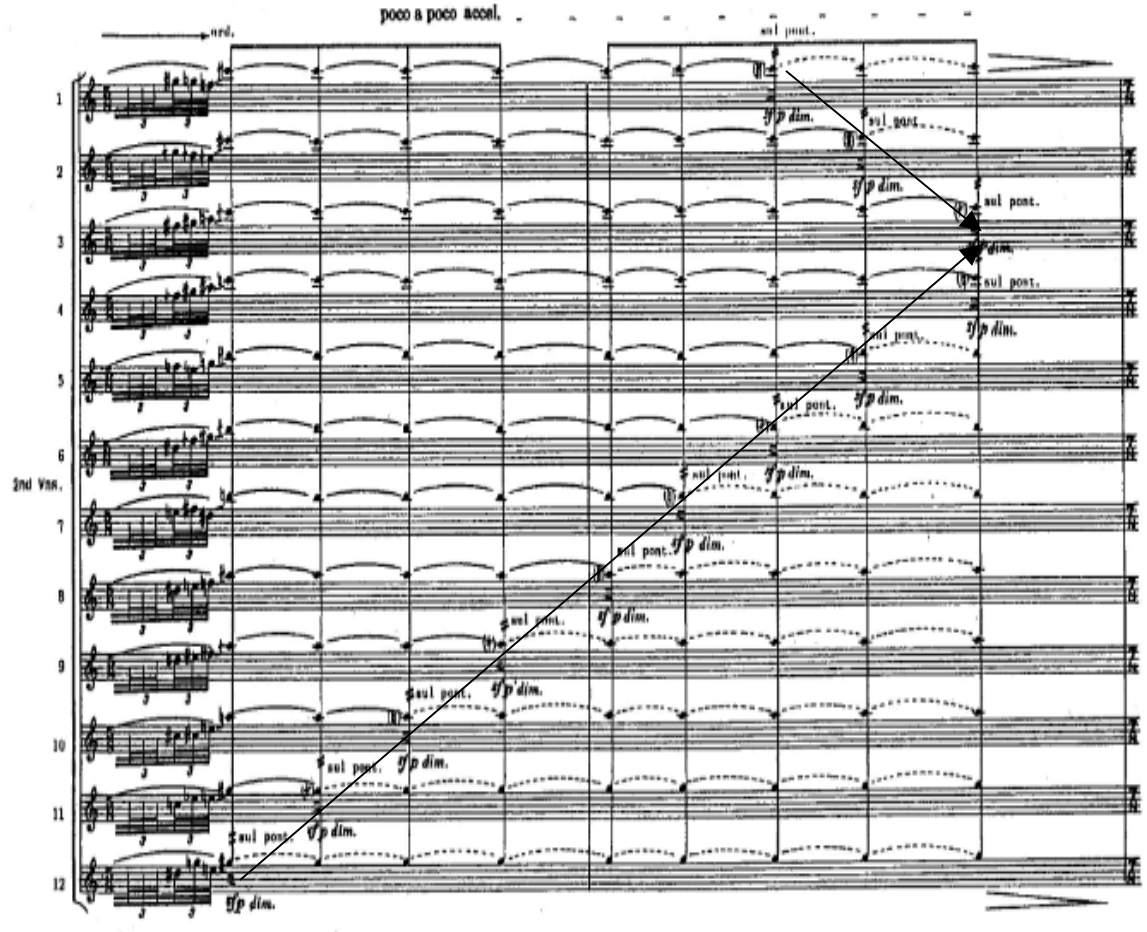
Figure 4.31 Microtones around the central note F at m. 37 in the string part.



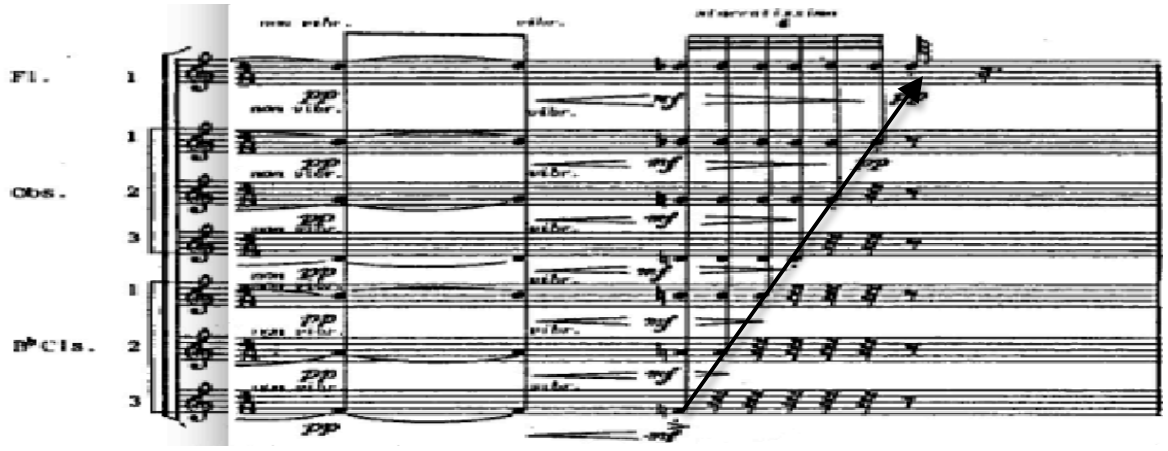
Section no. 8 (mm. 39-43): In the string part in m. 40, each of the twelve second violinists play a different microtonal grouping, which builds up a gigantic sound cluster. Then at mm. 41-42, the string parts are notated using *sul pontcello*, which generates a sound rich in overtones. This simultaneously reduce the sound level and providse a sharp, metallic timbre, which is created due to the increase of tension on a shorter length of the string (see Figure 4.32).

Figure 4.32 *Green*: example of the sound technique in mm. 38 and 41-42.

(mm. 41-42 in the second violin)



(m. 38 in the woodwinds)



Section no. 9 (mm. 44-48): The third general pause occurs here. A feeling of increased expectation and tension is brought about through the use of accelerando and glissando effects. Every instrument appears in mm. 36-37.

Section no. 10 (mm. 49-53): Quickly moving string sounds follow from section 9, after which sustained chords produce a variety of timbres with an extreme dynamic shift. Then, there is fourth general pause.

Section no. 11 (mm. 54-58): This section recalls the first melody through a variation on the introduction. This features the brass and the birdsong in the woodwinds in mm. 56-57.

Section no. 12 (mm. 59-63): This section is very slow and is a recapitulation of section no. 2 featuring the pitch collection D#, E, F, F#, and G#.

Section no. 13 (mm. 64-65): The closing section presents a sustained chord very quietly and slowly. *Green* finishes with an F# minor chord with a B in the contrabass. As previously mentioned, F# and B are important pitches in *Green.*

4.4 Cross-Cultural Influences in *Green*

> I [Takemitsu] am a Japanese composer, but it is not necessary to related music to some nation, some race. Music should be beyond such fiction… I would like to develop in two directions at once, as a Japanese in tradition and as a Westerner in innovation… I don't want to resolve [the] contradiction. On the contrary, I want to make the two blocks fight each other.[48]

Green was significantly influenced by Debussy and Messiaen's musical language, specifically with their focus on timber and pitch material, respectively. Because both composers were influenced by certain elements of Eastern music, it is unsurprising that Takemitsu would find inspiration in their work. Takemitsu was studying Debussy's orchestral works, *Prélude à l'après-midi d'un faune* and *Jeux*, when composing *Green* and *November Steps*.[49] *Green* has frequent changes of time signature and is rhythmically complex, but he also follows some principles of Western rhythm. In the Debussy's orchestration, individual woodwind timbres are often exploited, and this compositional technique is used in *Green* in the same manner.

The sonorities due not follow the rules of common practice tonality, but there remains a sense of Romantic conventional as opposed to the more abstract and contemporary styles of atonality. *Green* is composed in a Western musical style and is constructed using harmony and melody in a horizontal and vertical way exploiting scales, modes or expanded chords, changeable meter, and varying instrumental combinations to create shimmering sound colors.

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[48] Toru Takemitsu, Tania Cronin and Hilary Tann, Interview of "Afterword," *Perspectives of New Music* 27, no.b2 (Summer 1989): 209.

[49] Andrew Frank, Review of "Orchestral and Instrumental Ensemble Music [Toru Takemitsu: *Green*]," *Notes* 33, no. 4 (1977): 934-935.

Takemitsu was also influenced by the Second Viennese School, but he did not want to follow their strict discipline in regard to compositional technique. Instead, he became fascinated with Debussy's orchestration. In an interview, Takemitsu stated:

> Debussy seeks many points of focus and many gradations of color. These are very important. He combines several things at the same time, not only single things… [Debussy's] music is also very spatial. German orchestration is very condensed, with emphasis; it is very strongly one thing, like a tight, concrete building or something. Debussy's harmonies move, float; though now the approach of Debussy's music is getting to be so solid and fixed.[50]

Takemitsu's compositional style involves a detailed pre-compositional plan for all elements of the work. This sort of pre-compositional organization means that his music is not simple or focused on only one dimension. He presents a logically varied sound that follows some elements of Western compositional thought. Takemitsu's thoughts on the use of pre-compositional organization are stated in an interview: "…the first time I composed with such a strict system. When I compose music, before actually writing the notes I prepare carefully, and sometimes I construct a series or something like that."[51]

Takemitsu's composition titles are associated with natural phenomena such as water, cycles, or trees. Nature is an important concept in Zen thought, and accordingly, Takemitsu combines elements of Zen philosophy with his approach to sound construction. Thus, the thirteen sections in *Green* recall elements introduced in the open of the cycle such as death, rebirth, and reincarnation as outlined in the doctrine of Buddhism. These sorts of nature-related ideas are illustrated in Ohtake's book, where she states that, "we see the incorporation of the laws of

[50] Toru Takemitsu, Tania Cronin and Hilary Tann, Interview of "Afterword," *Perspectives of New Music* 27, no.2 (Summer 1989): 207-208.

[51] *Ibid*.

nature into his music as the ultimate goal for Takemitsu. To accomplish this goal, he liberates sounds from the law of human."[52]

Like the Impressionist painters and the Symbolist poets, Debussy tried to capture a fleeting impression or mood without pinning down the exact essence of a thought. Takemitsu also seems to want to express feeling in this way. He loves natural things, and this is why most of his work's titles are named after natural elements. The color green is presented as a vague programmatic element to each listener, and it is up to the listener to interpret the specifics depending upon his or her individual imagination. Because the color green is often associated with nature, even across diverse cultural boundaries, we may regard the work *Green* as drawing upon sound images from the forest or garden.

One could consider the garden as an abridged form of the universe in which the individual components consist of elements such as water, stones, sand, mountains, and flowers. Likewise, everything coexists aesthetically in harmony rather than as independent entities.

A Japanese garden is designed using five different groups of stones that together include fifteen stones of different sizes. *Green* is influenced by this garden design concept, as Ohtake makes clear in his book: "Different groups of instruments represent various materials in a garden (such as rocks, trees, flowers and grass)."[53] The Japanese garden's construction is entirely related to Zen philosophy, and some of Takemitsu's compositions follow it, such as *Arc* (1966), *November Steps* (1967), and *Season* (1970). This is why Takemitsu's orchestration uses groupings of each block in various layouts in the manner of the laying out of stones in a Japanese garden.

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[52] *Ibid*., 27.

[53] Ohtake, Noriko. *Creative Sources for the Music of Toru Takemitsu.* (Aldershot: Scolar Press,1993), 22.

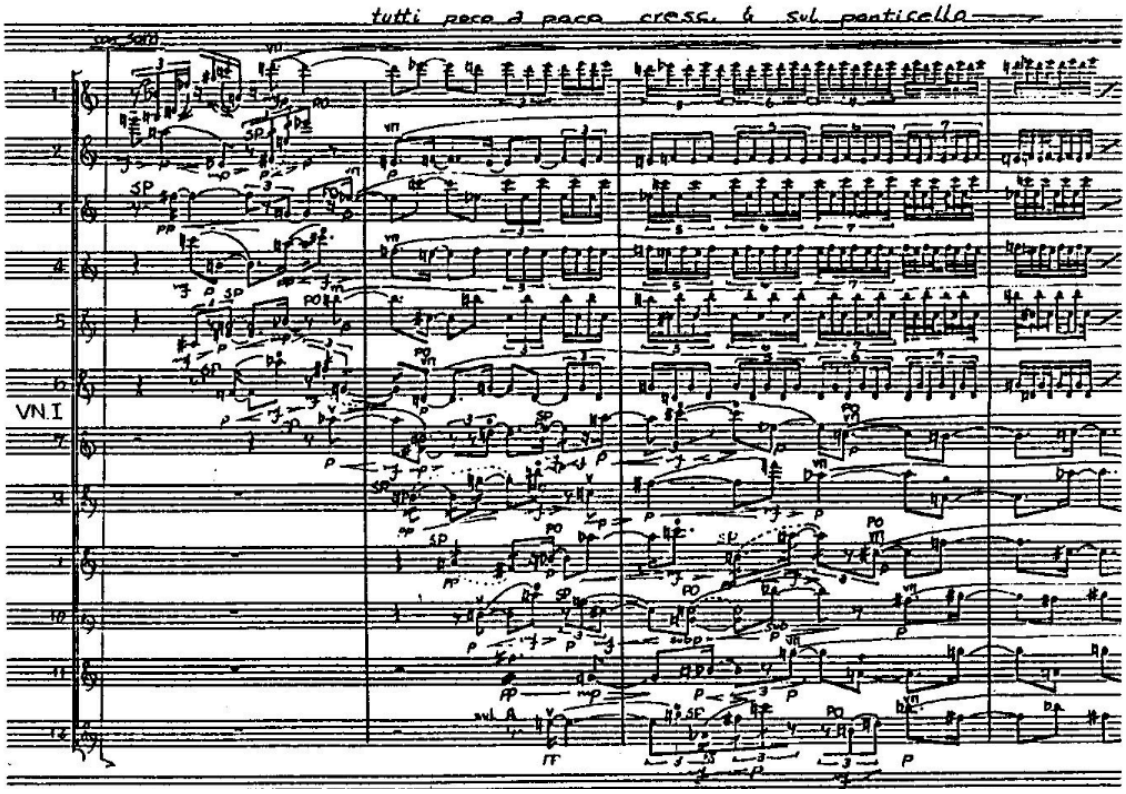
Let us now turn to some examples to see the connection between the garden concept and the musical elements that reflect this. Ohtake writes, "Time is an important factor in the plan of this work [*Arc,* 1963-66]. Each material transforms itself at a different rate (for example, flowers grow in less time than a tree, and the season affect each substance differently). This results in complex rhythms and tempi."[54] Specific references for Takemitsu's garden symbolism are identified in the Ohtake's book with musical examples taken from *Arc*.[55] For instance, a group of trees are symbolized more slowly than grass or flowers (see Figure 4.33).

[54] Ohtake, 22.

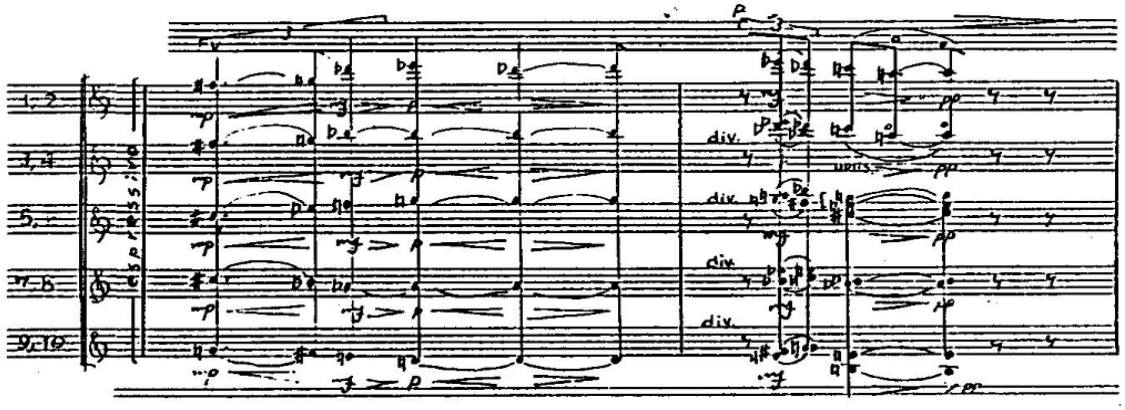
[55] Ohtake, 91-2.

Figure 4.33 Expression of quick growth in the movement of grass and flowers in *Arc*, part 1, second movement, page 2 of the first violin (above), and the slow movement of trees in *Arc*, part 1, second movement, page 1 of the second violin (below).[56]

(Grass and Flower Materials)



(Tree Materials)



[56] *Ibid*., 92.

The symbolism in Figure 4.33 provides a model for how one might interpret the garden symbolism in *Green.* Figures 4.34 and 4.35 present section nos. 8, 10, and 11 present the feeling of walking in an imaginary forest or garden. The flute imitates the birdsong, and thus the audience gets the feeling of walking on a forest path. In a manner similar to Ohtake's examples from *Arc* (figure 4.33), mm. 3-4 of section no. 8, the strings play a long, slow gesture representing the slow growth of trees, while the xylo-marimba, piano, and harp perform shorter, more rhythmically active gestures suggesting the rapid undulation of grass and tiny flowers in the breeze. Then in m. 5, the bassoon and French horn hold a sustained note, which contrasts with sextuple figures in the woodwind and brass, again representing different growth cycles in the garden elements. Beginning in section no. 10, a sustained chord creates a giant sound block in the low register of the string part, with the contrabass and cello part being especially prominent, all of which suggests a massive, immobile rock. Measure 5 of section no. 10 and mm. 1-2 of section no. 11 presented tree martials.

Figure 4.34 The musical materials of grass and flowers in mm. 2-5 of section no. 8.

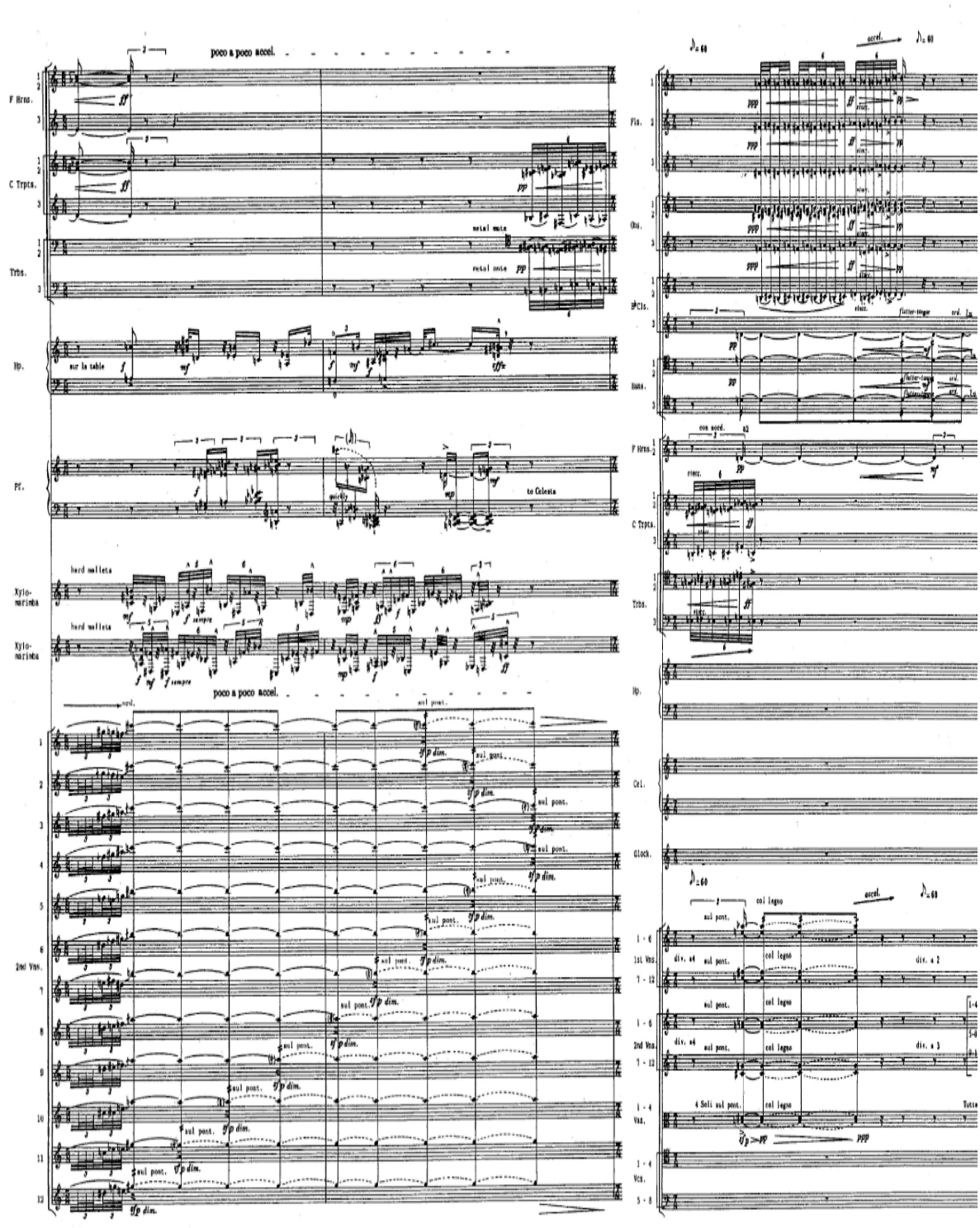
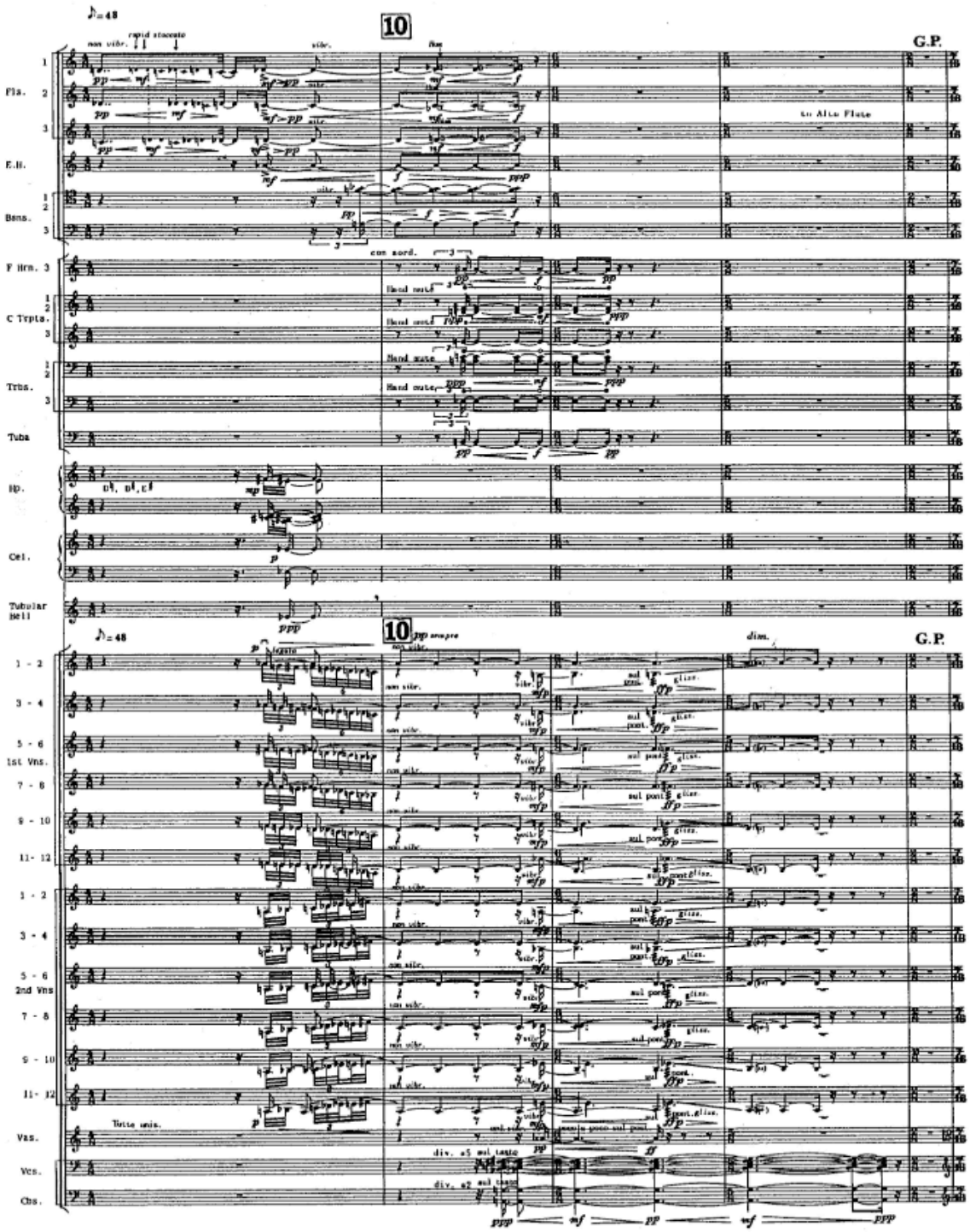
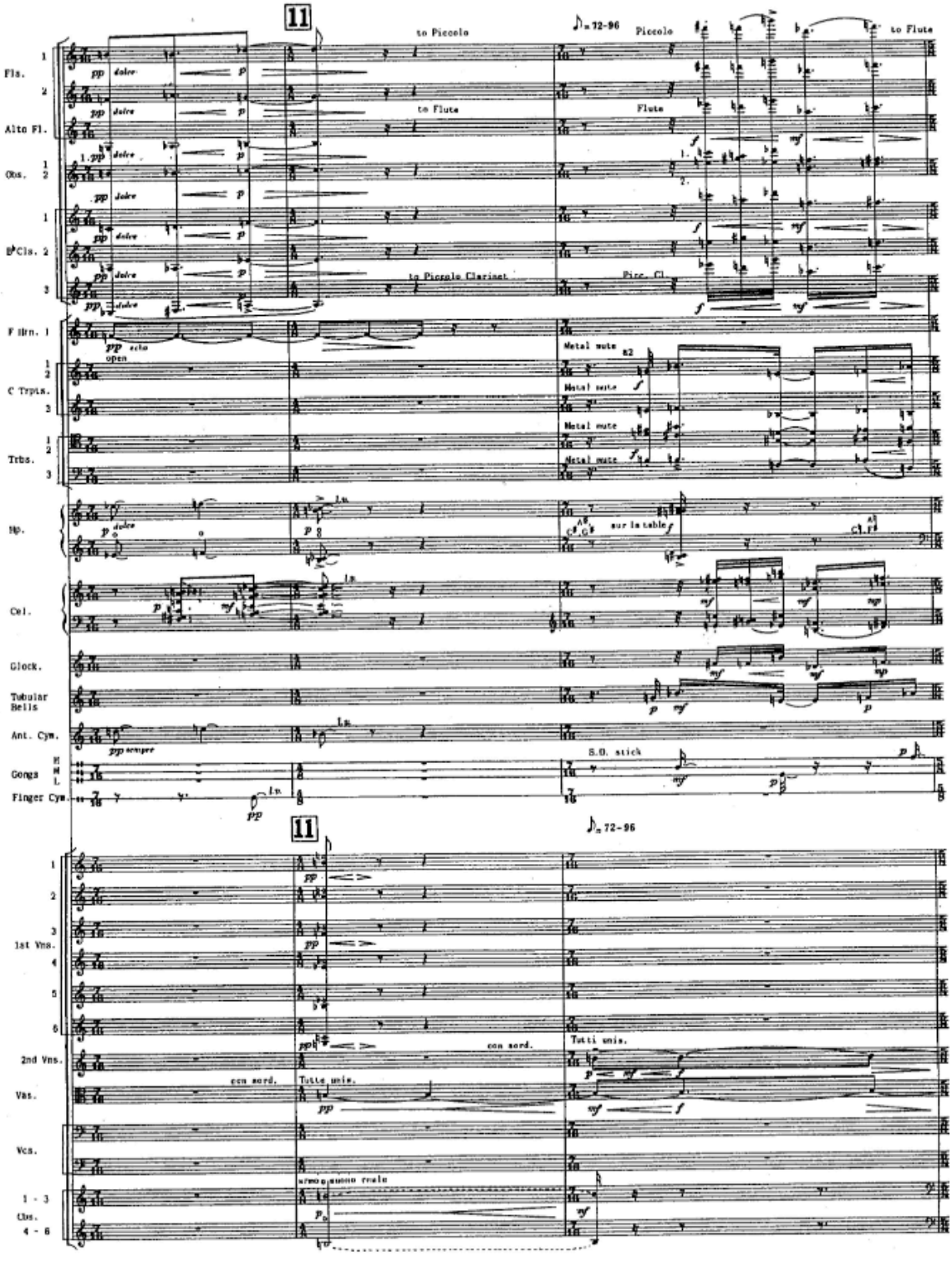


Figure 4.35 The musical materials of trees and the rock in mm. 1-4 of section no. 10 and mm. 1-2 of section no. 11.





Western composers and their musical techniques influenced Takemitsu directly, but he did not forget his Japanese nationality. This is why his aesthetic seems Westernized while also containing an invisible bridge to Eastern aesthetics and philosophy. The philosophical idea of Japanese Zen in notable in the four general pauses of *Green*. On the topic of sound and silence, Takemitsu states,

> … to make the void of silence live is to make the infinity of sounds. Sound and silence are equal... Now, I have in mind the eastern concept of ma-pause, or interval-as compared with the Western concept of a rest, a silence, which can often means emptiness… Ma is not only concept in time; it is at the same time very spatial, a spatial thing, I believe. Ma is, perhaps… oh, ma is a very philosophical term.[57]

In music, a general pause leaves the previous sounds to linger in the air for a moment, creating an effective sonority. The general pause takes on the role of intensifying a feeling of tension that may contrast with a previous idea. As mentioned in chapter two, silence is not only related to naturalist thinking, but it is also a part of Eastern Zen thought. Some art historians make comparisons between the different approaches of painting in the East and the West.[58] For instance, the Eastern painting technique *sumi-e* (ink wash painting) which draws only upon black ink, blends existence with nonexistence using a lighter texture than western oil painting.[59] In Western music, the composer intentionally arranges sound and silence, and in a sense, rests take on an auxiliary role of spacing sound segments. Silence in Eastern music assumes a meaning greater than that in the West. In the *sumi-e* painting style, the background and objects exist with equal status, much in the way that sound and silence are of equal importance in Eastern music. It

[57] Toru Takemitsu, Tania Cronin and Hilary Tann, Interview of "Afterword," *Perspectives of New Music* 27, no. 2 (Summer 1989): 212.

[58] Michael Sullivan, *The Meeting of Eastern and Western Art* (Berkeley: University of California Press, 1989).

[59] Fredric Lieberman, *Zen Buddhism and its relationship of Elements of Eastern and Western art* (accessed March 30, 2014) http://artsites.ucsc.edu/faculty/lieberman/zen.html#Zen%20Contemporary.

is the same way in the field of music, with the musical notes as the black ink, and the background represented by silence. However, the meaning of existence in Takemitsu's music is different insofar as it contains dynamics, drama, and brilliant colors than would result from drawing only with the color black. In other words, the Western elements of existence and the Eastern symbols of nonexistence (i.e., silence) coexist in this music. This concept is not only an artistic goal, but also reflects Zen philosophy.

CONCLUSION

Eastern and Western composers are often influenced by the geographical regions in which they are born; however, in the twentieth- and twenty-first-centuries, these national and cultural boundaries have become blurred in music. Composers like Scelsi and Takemitsu are dedicated to the idea of art as transcending boarders of nationality and the aesthetics of their culture of origin, and this has led them to explore the foreign artistic practices and cultural ideas. Often, these composers find inspiration in the unfamiliarity of foreign cultures, and this leads them to the creation of musical hybrids, as one finds in the Eastern-influenced music of Scelsi and the Western-influenced music of Takemitsu. Rather than focusing on maintaining ostensible nationalist purity, these composers have a conception of art that is larger than national boundaries.

Geographically speaking, Giacinto Scelsi is a Western composer, but Eastern philosophy is absolutely central to his musical language. In his *Suite No. 9 "Ttai,"* one finds numerous Eastern musical elements such his attempt to mimic the sound of microtonality through the piano and his use of soft, delicate textures, as well as Eastern philosophical ideas such as the use of repetitive cycles related to Buddhism. Similarly, his *Quattro Pezzi su una nota sola* for orchestra uses a musical language inspired by Eastern musical concepts. Rather than focusing on the harmonic verticality of Western music, Scelsi's music emphasizes the horizontal in the heterophonic texture of this work. Here, the use of long, sustained notes thwarts all sense of forward momentum and the listener experiences a state of temporal suspension. Where Western music based around tangible harmonic and rhythmic relationships offers a more concrete sonic experience of time and space, the amorphous and mysterious nature of Scelsi's arrhythmic,

microtonal ambiguity transports the listener to a realm beyond the boundaries of metrical, harmonic, and melodic convention. To create these nebulous musical effects, Scelsi uses techniques such as trills, tremolo, glissandi, and tone clusters to create a thick, dramatic, and animated sound.

In contradistinction to Scelsi, Takemitsu is an Eastern composer whose music is systematically and logically Westernized. His solo piano work, *Rain Tree Sketch*, was influenced by three western composers: Messiaen, Debussy, and Ravel, and therefore his music employs conventional horizontal and vertical pitch and harmonic organization. *Rain Tree Sketch* uses the general language of Modernism and involves certain Western pitch collections favored by French composers (e.g., octatonic and whole tone scales, tritones), but he uses them in a way that is uniquely his own, and he retains a sense of musical beauty even within music that is atonal. In *Green* for orchestra, Takemitsu borrows elements from Debussy's orchestration techniques including the full range of the orchestra, chordal sound blocks, and the doubling of instrumental groups. The music also contains a balance of emphasis on both the horizontal (melody) and the vertical (harmony). However, in spite of the Westernized elements in Takemitsu's musical language, he always retains conceptual elements that are decidedly Eastern. For instance, most of the titles of his works relate to nature, and through these associations, he attributes sonic meaning to objects of nature.

Both Scelsi and Takemitsu reached beyond the aesthetics and mentalities of their national origin to create original works of music that transcend geographical boarders. They were both influenced by Buddhist philosophy, they both worked within the aesthetic realm of musical modernism, and they both found an inspiration in cross-cultural borrowing. This is an important model for future composers, because a better understanding of foreign cultures can be an

incredible source of inspiration. By looking beyond the conventions of one's own musical situation, composers can discover new ideas leading to an ever more diverse array of musical possibilities.

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